

CROWD POWER

Equity Crowdfunding
for Energy Access:
Opportunities for
Scale-up?



AUTHORS

Davinia Cogan

Davinia Cogan is a Programme Manager at Energy 4 Impact (E4I), where she runs the UK-aid-funded Crowd Power programme, which researches the role of financial innovation in energy access company financing. Davinia is also a Research Affiliate of the Cambridge Centre for Alternative Finance at Cambridge Judge Business School. Davinia joined E4I in 2013, following a microfinance fellowship in Tajikistan, to launch E4I's business advisory team in East Africa. She held positions in investment management at ING Australia before moving out of the mainstream finance sector. She holds an M.A. in International Studies from the University of Sydney and a Bachelor of Business from the University of Technology Sydney.

Ana Odorović

Ana Odorović is a PhD candidate at the DFG Graduate School in Law and Economics at the University of Hamburg, a research affiliate of the Cambridge Centre for Alternative Finance at Cambridge Judge Business School, and a lecturer at the University of Belgrade's Faculty of Law. Her PhD thesis deals with the question of overcoming asymmetric information in the crowdfunding market from a law and economics perspective. In 2018, she was a visiting researcher at the University of Oxford. Her research interests span across the fields of economic analysis of law and financial regulation. Ana also acts as a consultant on regulatory and policy issues in relation to FinTech. She holds an LLM degree in business law from the Panthéon-Assas University and an M.A. in Economics from the University of Belgrade.

Kieran Garvey

Kieran Garvey is an independent expert on alternative finance, with a focus on equity crowdfunding and the regulation and policy of various FinTech activities. He has helped 50 companies raise over \$34 million via equity crowdfunding between 2013 and 2015, and was Associate Manager of the UK Crowdfunding Association. In 2016-2019, he developed a tech product that uses machine learning and NLP to analyse regulation globally, he also led the development of an online FinTech education programme for financial regulators in 120+ countries, at the Cambridge Centre for Alternative Finance, University of Cambridge, where he is now a Research Affiliate. He is the Head of Faculty at Cambridge Spark, which develops AI and Data Science education products. He previously established a microfinance social enterprise in Vietnam. He holds an MSc in Environmental Technology from Imperial College London and a Bachelor in International Relations from the London School of Economics.

Irene Maffini

Irene Maffini is a PHD candidate at UCL, focussing her research on crowdfunding for energy access projects. She is also an early-stage investor and Portfolio Director at Sustainable Ventures, supporting sustainability-focussed SMEs to commercialise their technologies and grow. Irene has over a decade of experience in research, policy, finance and consulting in the field of clean technology commercialisation, incubation and investment, working on innovation programmes for the UK Government, the European Commission, Climate KIC, the World Bank, the Swedish Energy Agency, UNDP, Shell and General Electric. Throughout her career, Irene has mentored and advised over 80 impact-driven companies, on scaling globally and raising over \$68 million in funding. Irene holds an MSc in Environmental Technology from Imperial College London, and a double degree in Business and Economics from Northeastern University and Università Cattolica del Sacro Cuore.

CONTENTS



Report Summary	5	4 Energy Access Sector Suitability	40
Introduction	10	4.1 Examining Energy Access-Related Equity Crowdfunding	41
1 Energy Access Company Financing	12	4.2 Company Profile & Equity Crowdfunding Success	45
1.1 Business Models & Financing Needs: An Overview	12	4.3 Jurisdictional Considerations	46
1.2 The Purpose & Supply of Equity Capital	18	4.4 Closing the Equity Gap with Crowdfunding	50
1.3 Company Maturity & Types of Equity Capital	20	5 Crowd-Investors	52
2 Equity Crowdfunding Basics	22	5.1 Investor Profile & Behaviour	52
2.1 What is Equity Crowdfunding?	22	5.2 Investor Motivations	54
2.2 Equity Crowdfunding Platforms	23	5.3 Investment Performance	57
2.3 Equity Crowdfunding Platform Models	24	6 Equity Crowdfunding Risks & Regulation	60
2.4 Financing Instruments	29	6.1 Equity Crowdfunding Risks	60
2.5 Revenue Models for Platforms	34	6.2 Equity Crowdfunding Global Regulatory Landscape	62
3 Equity Crowdfunding Market	36	6.3 Equity Crowdfunding Regulations	67
3.1 Global Market Trends	36	7 Interventions for Energy Access Related Equity Crowdfunding	72
3.2 Africa's Crowdfunding Market	37	7.1 Intervention Overview	72
3.3 Energy Access Crowdfunding Market	39	7.2 Intervention Roadmap	74
		References	81
		Annex: Interviewees	85



This material was funded with UK aid from the UK government via the Transforming Energy Access programme, however the views expressed do not necessarily reflect the UK government's official policies.

Acronym List

CCS: Clean cooking solutions
EIS: Enterprise Investment Scheme
IPO: Initial public offering
MFI: Microfinance institution
PAYGo: Pay-as-you-go technology

PULSE: Productive use leveraging solar energy
SEIS: Seed Enterprise Investment Scheme
VC: Venture capital

Key Terms List

Anchor investor: The first investor to commit capital to the round or campaign prior to the launch of the equity crowdfunding campaign

Co-investment: An investment in a specific campaign, typically made by a donor or funder, alongside crowd investors

Crowdfunding: Funding a venture or project by raising small amounts of money from a large number of people, typically via the internet

Debt: An obligation that requires one party, the debtor, to pay money or other agreed-upon value to another party, the creditor

Equity: Equity capital gives the equity holder shares, or a right to hold shares in the future, in exchange for their investment

Grant: Funds given by an entity to an individual or another entity for a specific purpose linked to public benefit (unlike loans, grants are not to be paid back)

Mini-grid: Off-grid electricity distribution networks involving small-scale electricity generation

Project finance: Financing long-term infrastructure or industrial projects, and public services using a non-recourse or limited recourse financial structure; the debt and equity used to fund the project are paid back from the cash flow generated by the project

Seed round: Financing round that raises initial capital to start a company

Series A round: A company's first significant round of venture capital financing

Series B round: The first round to take the company to the next level, past the development stage

Series C round: The first of 'later-stage' investments; generally occurs to make the company more appealing for acquisition, or to support a public offering

Crowdfunding Platforms List

Africa Greentec	Lloyd Corporate Capital
Afrikwity	Our Crowd
Bettervest	Seedrs
Crowd4Climate	StartEngine
Crowdax (Ortus Africa Capital)	Syndicate Room
Crowdcube	Trine
Econeurs	Uprise Africa
Greenvesting	WeFunder
Investdor	Wengi Equity
Kiro'o Rebuntu	Crowdfunding
	WiSeed

Crowdfunding Investees List

Africa Greentec	Open Energy Labs
Buffalo Grid	Renovagen
Charm Impact	Rural Spark
FuturePump	Shamba Technologies
Hycube	Sun Harvester
Lendahand	Trine
M-Power	WakaWaka

REPORT SUMMARY



Energy access companies often lack equity financing options, especially in the earlier stages of their evolution. From 2015 to 2020, energy access-related crowdfunding raised \$159 million, but equity crowdfunding accounted for just 6% of this. Debt crowdfunding accounted for 89%. Yet in 2020 and the first half of 2021, energy access-related equity crowdfunding campaigns raised a record \$11.2 million. The reasons for this acceleration remain unclear, but it may result from constriction in the start-up ecosystem's flow of investment; this is consistent with earlier research by Energy 4 Impact, which found many entrepreneurs turning to equity crowdfunding as a "last resort".

This report provides an in-depth analysis of the equity crowdfunding sector for energy access companies operating in sub-Saharan Africa and Asia, and seeks to answer several questions: does the recent growth in equity crowdfunding suggest this is a largely untapped resource in the sector? What types of energy access company are best placed to raise equity via crowdfunding? How can entrepreneurs go about preparing a campaign? And how can donors support the increased use of this alternative finance channel?

Our key findings are summarised below:

There were eighteen successful energy access-related equity crowdfunding campaigns between 2012 and 2021. Fifteen companies in the energy access sector used equity crowdfunding, raising an average of \$865,370 per campaign. Ten of the eighteen campaigns closed in 2020 or 2021, after the start of the pandemic. The accelerated activity in 2020 and 2021 may be due to fundraising uncertainty faced by companies trying to raise equity from other sources.

Successful campaigns have been run by companies operating across a range of business models, technologies and maturity levels. There is no single archetype or business profile that is successful on equity crowdfunding platforms. Thirteen of the eighteen successful campaigns were from companies raising pre-Series A rounds, and there was a high concentration of campaigns from seed stage companies, but later stage companies also used equity crowdfunding to raise Series B and Series C rounds.

We observed a number of common features among companies running successful campaigns:

- They have developed their own proprietary technology relating to energy and/or financing.

- They have entities incorporated in 'crowdfunding-friendly' jurisdictions (e.g. Europe) and raised capital at the holding company level. The two exceptions are Gnugrid (Uganda) and Soco (Burundi).
- They offer crowd-investors high growth potential; companies with predictable revenue streams are less appealing to crowd-investors.
- They are early-stage; two thirds of energy access-related equity campaigns were by pre-Series A companies.
- They had high quality pitch materials, including a video, and dedicated an enormous amount of time and resources to their campaign.
- They secured anchor investment prior to launching their campaign (typically 20% to 30% of their target).
- They have a high level of crowdfunding knowledge and experience.

The majority of platforms globally are based in 'crowdfunding-friendly' jurisdictions, which have the following characteristics:

- They have developed bespoke crowdfunding regulations specifically tailored to investment-based crowdfunding models (i.e. equity and debt-based crowdfunding).
- The cost of raising equity via crowdfunding is relatively low, due to a high funding threshold (e.g. transactions over \$5 million); this is the tipping point that triggers prospectus and disclosure requirements, which can be expensive for early-stage companies.
- There is a relatively high level of regulatory certainty about equity crowdfunding (whereas it is hard for markets to prosper if there are temporary or continuous bans on investment-based crowdfunding, e.g. in Nigeria).
- They have a mature and well-developed traditional financing market and a strong presence of early-stage investors (e.g. angels, venture capital (VC) funds).
- They may have a favourable tax environment that supports investing in early-stage companies, such as the UK's Enterprise Investment Scheme (EIS) and Australia's Early Stage Innovation Company scheme.
- There has been sufficient time (i.e. several years) since the introduction of bespoke regulations to allow for market development (e.g. the founding and growth of platforms).



All energy access-related equity crowdfunding campaigns have been hosted by platforms in Europe, where there is greater regulatory certainty.

There was a high concentration of successful campaigns in the UK and the Netherlands. There are few equity crowdfunding platforms operating in sub-Saharan Africa due to regulatory uncertainty. However, some countries have developed, or announced the intention to develop, bespoke equity crowdfunding (or investment-based crowdfunding) regulations, including South Africa and Kenya. The African Crowdfunding Association reports that they have five equity crowdfunding platform members: Kiro'o Reuntu in Cameroon, Uprise.Africa in South Africa, Crowdax (Ortus Africa Capital) in Uganda, Wengi Equity Crowdfunding in Tanzania, and Lloyd Corporate Capital in Zimbabwe. These platforms have not been used by energy access companies to date.

In most cases, equity crowdfunding is unsuitable for project finance, where the loan is repaid from a local operating subsidiary's revenues, rather than the holding company's revenues. Equity crowdfunding investors take a VC approach to investment: they prioritise companies with innovative technologies and high (uncapped) upside potential. It may also be unsuitable since local operating subsidiaries (e.g. a mini-grid project) are not usually domiciled in 'crowdfunding-friendly' jurisdictions. Few platforms can accept local operating subsidiaries, due to country of domicile restrictions on investees.

To date, the long-term failure rate of energy access-related companies using equity crowdfunding is much lower than one might expect. Of the fifteen companies that raised equity via crowdfunding since 2012, one was dissolved in 2019, and another entered voluntary liquidation in 2021, citing the impact of the pandemic on sales. This represents a 13% failure rate, compared to reported venture-backed firm failure rates of 30% to 75%.¹ However, ten of the fifteen companies closed their crowdfunding campaigns in 2020 and 2021, so the long term performance of these companies is not yet known.

1 <https://www.wsj.com/articles/SB10000872396390443720204578004980476429190>

Equity crowdfunding has the potential to fill part of the equity financing gap faced by the sector, but this is not a standalone solution. Research by Acumen, a non-profit impact investor, indicates that \$210 million in early-stage equity is required annually to close the energy access gap. Between 2015 and 2018, an average of \$16.5 million was deployed annually. Although equity crowdfunding could be leveraged by more companies in the sector, it works best when used alongside more traditional early-stage investment, such as angel and VC investment. It can be used, for example, to top up funding rounds and as a bridge round. It is often used to raise a pre-seed or seed round, allowing companies to demonstrate commercial viability and access later-stage debt and equity capital.

Donors can play an important role by supporting companies with campaign preparation and implementation, alongside co-investment. Platforms often require 20% to 30% of the target as anchor investment before listing on a platform, to create initial momentum and act as a quality signal to other investors; anchor investment can therefore be an especially catalytic form of co-funding. We propose that the following interventions should be prioritised by donors aiming to support equity crowdfunding. Interventions 1 to 3 are designed to work as one holistic initiative.

INTERVENTION	DESCRIPTION	AIM
1. Deal origination and due diligence support to platforms	Strategic partners with sector expertise could introduce equity crowdfunding platforms to vetted energy access firms, which have gone through their expert due diligence.	To make the energy access sector more appealing to equity crowdfunding platforms.
2. Investment readiness and marketing support to companies	A training programme could be established to help energy access companies prepare an equity crowdfunding campaign. This intervention is most effective when combined with co-investment, particularly in the form of anchor investment.	To increase the likelihood of campaign success and support companies with crowdfunding-associated costs.
3. Co-investment	A donor provides funding that can be deployed as co-investment in the form of i) anchor investment; ii) bridge funding; iii) match funding; iv) grants to successful campaign-makers; and i) investment vouchers; or a combination thereof.	To increase the likelihood of campaign success and reduce the timeline to campaign launch (when deployed as anchor funding).
4. Platform-managed energy access fund	A fund could be established which sources funds from crowd-investors, and invests in energy access companies, possibly alongside other specialist energy access investors.	To provide investors with a diversified portfolio of energy access or impact investments, to reduce risk for investors and save time for investees.

Equity crowdfunding has the potential to make a material contribution to the early-stage equity financing gap faced by the energy access sector. For the right companies, it can be an effective supplementary source of funding, and can be leveraged to attract grants, debt capital and

equity investment from other funders. It should be considered as an additional, supplementary financing option for energy access entrepreneurs examining their funding strategy, particularly in the early stages of their company lifecycle.



Research by Acumen, indicates that **\$210 million** in early-stage equity is required annually to close the energy access gap. Equity crowdfunding has the potential to fill part of that financing gap

INTRODUCTION



The UN's Sustainable Development Goal (SDG) 7 calls for "access to affordable, reliable, sustainable and modern energy for all" by 2030. Based on current trends, however, predictions estimate that between 620 and 690 million people will remain unelectrified in 2030.² To achieve SDG7, the sector will require approximately \$3 billion annually. In 2020, a total of \$315 million in grants, debt and equity was raised, and energy access companies frequently cite "access to finance" as the number one impediment to company growth.

Currently, much of the finance raised in the sector goes to more established energy access companies that already operate at scale. However, there is also the need for continued innovation, competition and growth to increase the diversity, distribution and quality of energy access products and services. Small, earlier stage companies with new business models and value propositions are an integral part of this process, but they lack early-stage financing options to drive growth.

THE IMPORTANCE OF EARLY STAGE INVESTMENT

Acumen Fund estimates that \$210 million in early-stage equity is needed annually to meet the needs of early-stage companies. Financing options for early-stage energy access firms are limited, due to the finite pool of grant funding available, the unsuitability of debt for companies with short trading histories, and a lack of risk-tolerant early-stage equity capital in the market. Thus, additional channels of early-stage finance, like equity crowdfunding, could make a material difference in closing the early-stage equity gap faced by companies in the sector.

While there is enthusiasm from funders on the prospects of the energy access sector, there is also consensus that the sector will struggle to absorb the projected \$3 billion required, without addressing the shortfalls encountered so far.³ Without deepening financing resources and broadening the options for early-stage companies, there will be an insufficient pipeline of investees.

THE GROWTH OF EQUITY CROWDFUNDING

Equity crowdfunding emerged around 2007 as a mechanism for early-stage and fast-growing companies to raise risk capital from retail and institutional investors via online platforms. Globally, \$10.8 billion has been raised via equity crowdfunding up to December 2020, and \$1.5 billion was raised in 2020. Still, this is a small contribution when compared to traditional venture capital, which raised over \$300 billion in 2020 alone.⁴

Despite the growth of equity crowdfunding globally, there have been just eighteen energy access-related equity crowdfunding campaigns. While equity crowdfunding comes with challenges, the reality is that there are few early-stage financing options available to energy access entrepreneurs. Additional sources of equity capital can be catalytic and, indeed, may be a lifeline to firms which may otherwise not survive.

REPORT METHODOLOGY AND SCOPE

The research in this report was compiled over 2020 and 2021 through desk-based literature reviews and interviews with subject matter experts, including those from crowdfunding platforms, sector experts, and those from energy access companies that utilised equity crowdfunding.

The report is designed to support entrepreneurs, practitioners, crowdfunding platforms, co-investors and donors, to deepen their knowledge of this emerging fundraising channel in the energy access sector. The report explores:

- The role of equity in energy access company financing
- The core mechanics, models and financial instruments available via equity crowdfunding
- The role and suitability of equity crowdfunding for energy access companies
- The types of investors that invest via equity crowdfunding and their motivations to invest
- The regulatory and policy considerations relevant to equity crowdfunding
- The potential role of donors in helping companies to leverage equity crowdfunding

In addition to this report, Energy 4 Impact has published the [Equity Crowdfunding Guide: How to Execute a Successful Campaign](#) to provide practical guidance to founders and entrepreneurs intent on launching an equity crowdfunding campaign. The guide provides practical advice on the process, from choosing a platform to closing a campaign.

This report focuses on equity crowdfunding and equity-like financing instruments, and does not cover pure debt-based crowdfunding or non-financial return models. Please refer to other Crowd Power research available on [Energy 4 Impacts Publications page](#).

2. Tracking SDG7 Report 2020, <https://trackingsdg7.esmap.org/>

3. Shell Foundation (2018). Market Insight Early-Stage 'Blended Finance' for Universal Energy Access in Africa. Retrieved from <https://shellfoundation.org/opinion/market-insight-early-stage-blended-finance-for-universal-energy-access-in-africa/>

4. KPMG, <https://home.kpmg/xx/en/home/media/press-releases/2021/01/future-looks-bright-as-global-venture-capital-funding-soars-to-usd-300-b.html>

1

ENERGY ACCESS COMPANY FINANCING

1.1 BUSINESS MODELS & FINANCING NEEDS: AN OVERVIEW

Energy access companies sell energy products and services, such as solar home systems (SHSs) and energy-efficient cooking appliances, to customers living off the grid in low- and middle-income countries. These life-changing products are sold through pay-as-you-go (PAYGo) technology, cash sales and microfinance institution (MFI) loans. In recent years, next-generation utilities have emerged to provide energy services through a fee-for-service model. Next-generation utilities generate revenue through ongoing usage or subscription-based fees.

A company's revenue model, business model and maturity greatly impact its financing requirements. While it is difficult to categorise the diversity of revenue and business models in the sector, this section outlines three factors that play an important role in assessing company financing, and therefore suitability for equity crowdfunding. Table 1 highlights four prominent revenue models in the energy access sector: cash sales, MFI loan financing, PAYGo, and service fee. The revenue model impacts both the volume and type of financing required by a company. A growth-phase PAYGo company, for example, will typically have high debt financing needs and a high percentage of company assets tied up in accounts receivable. On the other hand, an early-stage company with a cash sales model is likely to need equity and grants to finance research and development (R&D).

TABLE 1: HOW REVENUE MODELS IMPACT COMPANY FINANCING

COMPANY REVENUE MODEL	DESCRIPTION	IMPACT ON FINANCING NEEDS	SUITABILITY FOR EQUITY CROWDFUNDING
PAYGo	The retail customer pays for their products via technology-enabled, embedded consumer financing.	<ul style="list-style-type: none"> In-house asset financing creates a long cash conversion cycle (nine months to eight years), resulting in intense working capital needs to finance accounts receivable. The need for debt may increase the need for equity to ensure the company can maintain a sound debt-to-equity ratio. Main equity needs: R&D for product manufacturers, market expansion, staff costs (pre-Series A), and other forms of working capital (out of necessity). 	<p>► HIGH</p> <p>PAYGo companies (e.g. M-Power) have used equity crowdfunding. A number of subscription-based business models, operating in high income countries, have also successfully raised equity via crowdfunding.</p>
Cash sales	The retail customer settles the payment in full with cash at the point of sale.	<ul style="list-style-type: none"> Cash sales create company liquidity, shortening the cash conversion cycle. Lack of end-user financing increases consumer barriers to purchase, reducing sales volumes. Main equity needs: R&D for product manufacturers, market expansion, and staff costs (pre-Series A). 	<p>► HIGH</p> <p>Globally, many companies that have used equity crowdfunding successfully employ a cash sales business model.</p>
Service fee	The retail customer makes ongoing periodic energy usage- or subscription-based payments to an energy service company via mobile money.	<ul style="list-style-type: none"> Upfront capital expenditure (e.g. mini-grid development costs) is often a blend of debt and equity – typically in the form of project finance. Cash flow is in the form of incremental revenues over a long time horizon (e.g. ten years). Main equity needs at holding company level: working capital, including key hires, and expansion to new markets. At project company level: capital expenditure, and early operation and management costs. 	<p>► MEDIUM</p> <p>For a holding company.</p> <p>► LOW</p> <p>For a project company.</p> <p>Project finance is not typically suitable for equity crowdfunding due to predictable income streams, low growth potential and depreciation asset value.</p>
MFI loan financing	The retail customer obtains point of sale financing from an MFI, through a partnership between the energy access company and the MFI. At the end of the financing agreement, the customer owns the system.	<ul style="list-style-type: none"> MFI financing creates company liquidity, shortening the cash conversion cycle. The energy access company will need to invest in robust customer support and after-sales to build a partnership with the MFI. Main equity needs: R&D for product manufacturers, market expansion, and staff costs (pre-Series A). 	<p>► LOW</p> <p>No examples of relevant equity crowdfunding campaigns.</p>

The company business model influences its type of investors. Fund managers, for example, often have a specific investment mandate, which outlines the technologies and business models that they'll invest in, such as clean cooking solutions (CCS). Grant makers often stipulate both the eligible business models and the company maturity levels

for a particular grant window. Past energy access-related equity crowdfunding campaigns have been by companies with a range of business models, demonstrating that crowdfunding success is not sensitive to the business model alone, as long as the investee meets the potential growth expectations of crowd-investors (see [4.2: Company Profile and Equity Crowdfunding Success](#) for more information).

TABLE 2: KEY BUSINESS MODELS IN THE ENERGY ACCESS SECTOR

BUSINESS MODEL	DESCRIPTION	TYPICAL REVENUE MODEL	EQUITY CROWDFUNDING SUITABILITY
Solar home systems (SHS)	SHS include both home lighting systems and large systems which can power appliances (e.g. mobile phone, TV, fans).	MFI loans and PAYGo. Due to the cost of the SHS, cash sales are less common.	► HIGH Campaign examples: M-Power
Productive use leveraging solar energy (PULSE)	PULSE is defined as any agricultural, commercial, or industrial activity that uses solar energy as a direct input to the production of goods or provision of services.	MFI loans and service fee.	► HIGH Campaign examples: Future Pump, Buffalo Grid
Pico solar products	Pico solar products are small solar products, which include small, portable solar lanterns, flashlights, or larger lanterns.	Cash sales. MFI loans and PAYGo may also be used, although they are less common.	► HIGH Campaign examples: WakaWaka, Shamba Technologies
Clean cooking solutions (CCS)	Modern cooking solutions, including electric, ethanol, LPG, biogas and biomass gasifiers.	Cash sales, MFI loans, and PAYGo.	► MEDIUM Campaign examples: Soco
Next-generation off-grid utilities	Next-generation off-grid utilities offer an integrated suite of energy products and services to off-grid or unreliable grid customers (e.g. lighting products, liquefied natural gas solutions, small mini-grids).	PAYGo and service fee.	► MEDIUM For a holding company. ► LOW For a project company. Campaign examples: Africa Greentec

Source: World Bank (February 2020). [Off-Grid Solar Market Trends Report](#).⁵

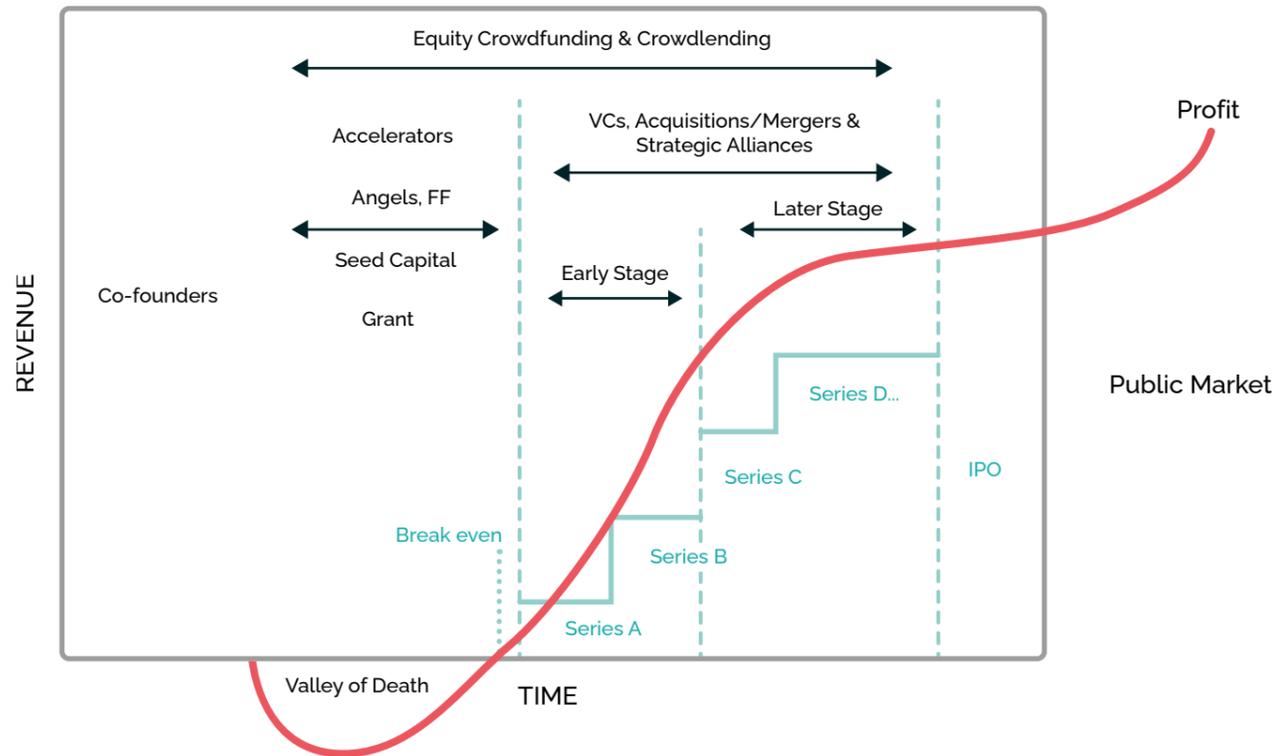
5. Retrieved from <https://www.worldbank.org/en/topic/energy/publication/off-grid-solar-market-trends-report-2020>

Energy access companies typically rely on three types of capital for growth: grant, debt, and equity.

TABLE 3: TYPES OF FINANCING REQUIRED BY COMPANIES

	DESCRIPTION	COMPANY STAGE	USE OF FUNDS
Grant	Typically non-repayable money awarded to a company through a grant window or competition, but can also include funds raised via donation/reward crowdfunding.	Pre-seed – Series A	For activities which are not yet commercially viable, such as a proof of concept, the launch of new products and expanding operations into a new market. Early stage companies in the sector rely on bootstrapping and grants to survive the “valley of death”, where firms are operating, but not yet generating revenue.
Debt	Funds raised by a company by taking out a loan. Debt holders do not become part-owners of the company, they become creditors.	Series A – Series C+	Once a company can demonstrate servicing capacity through revenue generation, it may raise debt in the form of working capital and/or capital expenditure. Working capital is crucial for companies with a PAYGo model, since much of the company's value is in the form of accounts receivable. Some lenders and organisations offer concessional loans (e.g. no- or low-interest loans, or loans that convert into grants) to pre-Series A companies.
Equity	Equity capital gives the equity holder shares, or a right to hold shares in the future, in exchange for their investment.	Seed – Series B	For growth-oriented activities, including R&D, company expansion and key hires. For pre-Series A companies, equity is often used to fund working capital.

FIGURE 1: THE STARTUP FINANCING CYCLE



Source: Adapted from Wikipedia – Venture Capital



Equity crowdfunding is most often used by companies raising a pre-Series A round

Image: @Annie Spral

TABLE 4: SOURCES OF EQUITY FINANCE

SOURCE	DESCRIPTION	RELEVANT STAGE
Self-funding (Co-Founders)	The founders use personal savings and sales revenue to build the business. Self-funding can also include "sweat equity", whereby founders' or early employees work without pay in exchange for shares.	Pre-seed, seed
Family and friends	The founders' family and friends agree to provide funding in return for a share in the business.	Pre-seed, seed
Private investors (e.g. Angels, HNWIs)	An individual or syndicate of investors, or angel investors, contribute funds to the company in return for equity. Angels may also offer sector or product expertise and advice.	Pre-seed, seed, Series A
Equity crowdfunding	Individual or institutional investors purchase equity issued by a company via an online platform.	Seed, Series A
Venture capitalists (VC)	Private equity investors provide capital to companies exhibiting high growth potential, in exchange for an equity stake.	Series A+
Development financial institutions (DFIs)	A specialised development organisation, usually majority-owned by national governments. DFIs invest in private sector projects in low and middle-income countries to promote job creation and sustainable economic growth.	Series C+
Initial public offering (IPO)	The company sells stock to the public for the first time via a public stock exchange.	Series D+

Note: Initial coin offerings (ICOs) are another form of capital raising. While tokenisations share some similarities with equity, ICOs are out of scope for this report due to the regulatory ambiguity surrounding ICO issuance and classification, as well as the declining use of ICOs since 2018.

1.2 THE PURPOSE & SUPPLY OF EQUITY CAPITAL

For most companies planning to scale, equity capital is a prerequisite for growth. The purpose of equity capital is to invest in activities that increase the company's value (e.g. R&D, market expansion); it is important for early-stage, pre-revenue companies. It is difficult to obtain investment at this stage, due to valuation uncertainty, but it is even harder to obtain

debt finance, given the lack of trading history. Plus, there are few early-stage investors in the energy access sector; many companies rely on grants to survive the pre-seed and seed phase. Grant funding is limited, however, in both total volume available and in funding amounts per grant. Equity crowdfunding has therefore emerged, as a tool to raise equity and bridge the gap between pre-seed and Series A rounds, and providing an additional source of early-stage capital.

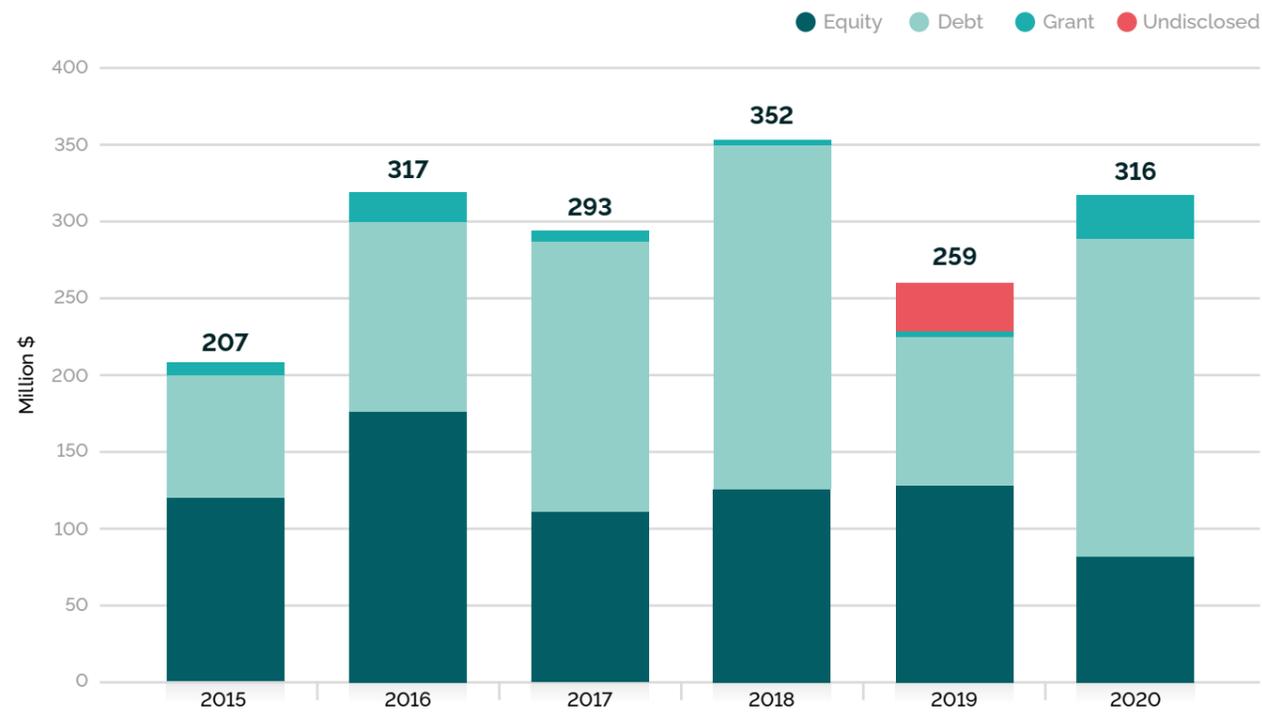
Research by Acumen indicates that \$210 million in early-stage equity is needed annually to close the energy access gap, while less than \$16.5 million was actually deployed annually, on average, from 2013 to 2017.⁶ In 2019 and 2020, equity investment in energy access companies increased, but still fell far short of closing the energy finance gap. Equity investments are often concentrated amongst a handful of companies. From 2012 to 2018, over 70% of equity investment in the SHS sub-sector flowed

to four companies, amounting to \$518 million of the \$733 million total equity invested⁷. These trends help to highlight why "access to finance" is one of the most frequently cited challenges faced by founders and senior management. Equity crowdfunding for energy access has played a very small role to date, with a total of just over \$12 million raised between 2012 and 2021, for sixteen companies.

6. Acumen (2018). *Accelerating Energy Access: The Role of Patient Capital*. Retrieved from <https://acumen.org/wp-content/uploads/Accelerating-Access-Role-of-Patient-Capital-Report.pdf>

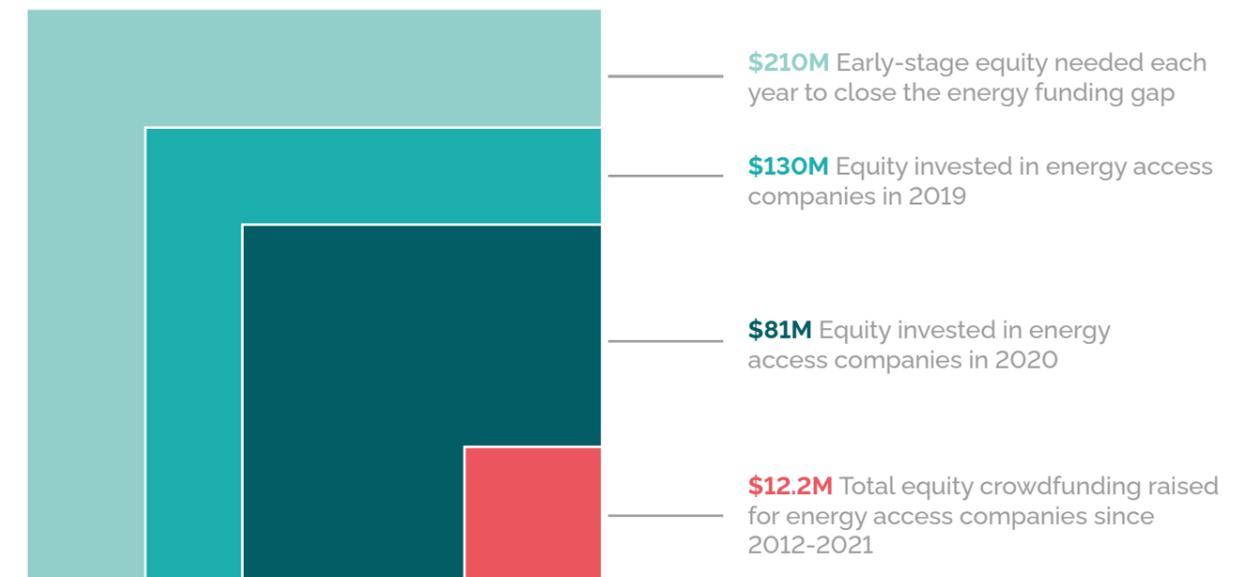
7. Acumen (2018). *Accelerating Energy Access: The Role of Patient Capital*. Retrieved from <https://acumen.org/wp-content/uploads/Accelerating-Access-Role-of-Patient-Capital-Report.pdf>

FIGURE 2: INVESTMENTS IN ENERGY ACCESS COMPANIES, 2015-2020



Source: Adapted from Vivid Economics' and Open Capital Advisors' analysis of Gogla, Deal Database

FIGURE 3: RELATIVE PROPORTION OF EQUITY FINANCE FOR ENERGY ACCESS FIRMS



1.3 COMPANY MATURITY & TYPES OF EQUITY CAPITAL

Company maturity affects both the size of the funding round and the type of equity investor involved. As a company matures, it will have access to a wider range of investors. Equity crowdfunding is most commonly used as a seed round, or as a bridge for a Series A round.

The **pre-seed** phase refers to the ideation phase, which is typically pre-revenue. The start-up may be working to develop a minimum viable product (MVP), and is unlikely to have employees beyond the founding team. It will often rely on support from advisors. Founders are the main source of equity during this phase, and provide both monetary and non-monetary (i.e. sweat equity) contributions.

The **seed** phase is the start-up's pre-commercialisation phase. The start-up may develop prototypes and/or begin market testing to assess feasibility. There are some commercial investors that specialise in seed-stage equity, but competition is fierce and funding is scarce. Start-ups that demonstrate a strong MVP, proof of concept, network and pitch may be suitable equity crowdfunding candidates. Equity crowdfunding may be used as a bridge between the seed and Series A round. Grant funding suitable for seed stage ventures is also an important source of capital during this time, but is limited.

Raising a **Series A** and **Series B** round is an important milestone that signals the start-up is moving into the growth phase, characterised by revenue growth, product refinement and employee growth. The company may also expand into new markets and launch new products. Series A and Series B investors include impact funds, VCs and crowd-investors (via equity crowdfunding). PAYGo companies will need to maintain an adequate debt-to-equity ratio, as they increase debt to finance accounts receivable. Series A and Series B investments may be a blend of equity, debt and grants (designed for scale-up activities).

Raising a **Series C** round indicates that the company is continuing to scale, and requires further equity for growth-oriented activities, such as expansion into new markets. Investors at this stage are typically impact funds, VCs and DFIs. Equity crowdfunding is less common as companies mature, although there are high profile examples of successful campaigns at this stage (outside of the energy access sector).

Project finance is a well-established financing mechanism for long-term, capital-intensive energy access projects such as mini-grids. Once the project is operational, construction risk is reduced, and revenues are generated. Project finance is usually blended finance (public and private debt, equity and grants); it is typically raised at the project company level, rather than by the holding company. For these reasons, equity crowdfunding is usually unsuitable for project finance. Equity crowd-investors expect high potential upside; they are unlikely to invest in infrastructure projects such as mini-grids, as the upside of these is generally capped.

TABLE 5: FINANCING AT DIFFERENT STAGES OF A COMPANY LIFECYCLE

TYPE	TICKET SIZE	MAIN TYPE OF FUNDING	MAIN SOURCES OF EQUITY
Pre-seed	~ \$50,000- \$200,000	Equity	Founders, family and friends, equity crowdfunding (although uncommon)
Seed	\$200,000- \$1 million	Grants, Equity, Company Revenue	Founders, family and friends, private investors, equity crowdfunding, VCs (although uncommon)
Series A-B	\$1 million – \$10 million	Debt, Equity, Company Revenue	Impact funds, VCs, equity crowdfunding
Series C+	>\$10 million	Debt, Equity, Company Revenue	Impact funds, VCs, DFIs
Project finance equity	>\$10 million	Grants, Debt, Equity, Company Revenue	Impact funds, private local specialists, active equity sponsors

Source: Energy 4 Impact, Shell Foundation 2018

2

EQUITY CROWDFUNDING
BASICS2.1 WHAT IS EQUITY
CROWDFUNDING?

Equity crowdfunding is a method of capital raising whereby a company offers securities to individual and/or institutional investors, via an online platform. This financial innovation emerged around 2007, as a distinct funding mechanism to enable early-stage and fast-growing companies to raise equity from investors.⁸ In 2018, the average deal size in the UK was reported by Beauhurst to be £975,000 (\$1.25 million).

The key distinction between equity crowdfunding and private equity (e.g. angel investing, VC funds) is that in equity crowdfunding, fundraising is online, and there are low minimum investment thresholds (e.g. \$10 per investment). These characteristics allow a much wider group of investors – often referred to as everyday or retail investors – to participate. Potential investors can review pitch materials and legal documentation via the platform, and then select companies (i.e.

investees) they wish to invest in. Once the investee reaches its investment target, the investors will own an equity stake in the investee company (either directly or through a nominee structure).

For businesses, equity crowdfunding has a number of benefits: it diversifies funding sources, it is suitable for early-stage companies, and it can unlock follow-on funding from private equity investors. Additionally, campaign success (or failure) can be used as a proxy for market testing, where there is an overlap between the company's target market and its investor base. This very public form of fundraising also has marketing benefits. Equity crowdfunding is a proven model for capital raising, used by eighteen companies in the sector so far.

2.2 EQUITY CROWDFUNDING
PLATFORMS

The largest equity crowdfunding platforms globally are based in Europe, the USA, and Israel. The table below highlights the most established platforms,

raising \$10.8 billion to date. All these platforms provide funding for all types of businesses across different industries. The three largest platforms globally are OurCrowd (Israel), Seedrs (UK) and Crowdcube (UK).

TABLE 6: A COMPARISON OF LEADING EQUITY CROWDFUNDING PLATFORMS

PLATFORM ATTRIBUTE	CROWD-CUBE	SEEDRS	OUR-CROWD	SYNDICATE ROOM	INVEDSOR	WISEED	STARTENGINE	WE-FUNDER
Year Founded	2010	2010	2013	2013	2012	2008	2012	2011
Markets Operating	UK, Spain	UK, EU	Israel	UK	Finland, EU	France	USA	USA
eCF Model	Nominee	Nominee + Secondary Market	Lead Investor	Fund	Nominee	Direct	Hybrid	-
Investor base	100000+	100000+	58000	33000+	-	150000	838000	300000
Total Funds Raised (million USD)	1300+	1300+	1500+	353+	200+	300+	200+	250+
Fees	○ 5-7% of funds raised successfully	○ 7.5% of any investors profit	○ 2% annual management fee ○ 20% of profits up to 5* investment amount	○ 1% setup fee ○ 1.5% annual management fee ○ 10% performance fee	○ Listing fee ○ 5-10% of funds raised	○ 7.5% of funds successfully raised	○ 7-11% of total funds raised ○ \$10000 Service Fee	○ 5-7% of funds raised successfully
Regulatory status	Regulated by the UK's FCA and EU passporting regime	Regulated by the UK's FCA and EU passporting regime	Regulated by the UK's FCA and EU passporting regime	Regulated by the UK's FCA	Regulated by the Finnish FSA	Regulated by the ACPR of France	Reg D, A+ and Reg CF Breakdown	Reg D, A+ and Reg CF Breakdown

8. The first known equity crowdfunding platform is Australian Small Scale Offerings Board (ASSOB) which facilitated relationships between investees and potential investors, though at the time the platform appeared, it operated under Section 708 of the Corporations Act 2001, which assumes a different business model from the business model of Crowd-sourced Funding Provider holding an Australian financial services licence according to the Corporations Amendment (Crowd-sourced Funding) Act 2017.

Some of the largest equity crowdfunding platforms listed in the table above have collectively raised over \$5.5 billion. This means that the equity crowdfunding market is concentrated to a small number of large platforms, which benefit from economies of scale through large investor bases and strong brand awareness. Crowdcube and Seedrs recently tried to merge their organisations to further benefit from economies of scale, but this was blocked by the UK's Competition and Markets Authority.⁹

It is worth highlighting that none of the major platforms specialise in a particular sector. This is largely because the viability of these platforms depends on funding many companies; limiting

the pipeline of companies that can raise funds on the platform limits the number of campaigns and, therefore, the platform revenue. Some smaller platforms have emerged, however, which focus on a particular sector, such as renewable energy.¹⁰

2.3 EQUITY CROWDFUNDING PLATFORM MODELS

There are three key equity crowdfunding models that account for the vast majority of equity crowdfunding market activity:

9. <https://www.gov.uk/cma-cases/crowdcube-seedrs-merger-inquiry>

10. Energea is an example of a platform based in the USA that specialises in the energy access sector. It was established in 2020 but has funded very few companies to date. Retrieved from <https://www.energea.com/>

EQUITY CROWDFUNDING MODELS



HOSTED PITCH MODEL

Companies list on an equity crowdfunding platform, and investors select the ones they want to invest in. The platform is responsible for verifying investee claims, while investors are responsible for conducting their own due diligence on business model viability.



SYNDICATE MODEL

A lead investor conducts due diligence on the investees, including the verification of investee claims and business model viability. Investors can leverage the lead investor's expertise and invest via the platform, if they choose to.



PLATFORM-MANAGED PORTFOLIO FUNDS

Investors invest in a fund listed on a platform that invests in a portfolio of companies, rather than directly into individual companies.

► 1. Hosted Pitch Model

This is the most common model. The platform acts as an intermediary, and doesn't issue or underwrite the securities offered. The platform initially completes preliminary viability checks on an investee; then, once the campaign is approved, the platform is responsible for the verification of all information provided by the investee. The platform also ensures that all claims are verified with evidence, but is not responsible for ascertaining business model viability. The valuation is typically set by the investee, in consultation with the platform. The platform may provide additional tools and services to help investees to prepare and promote the campaign. It will also provide post-funding information to investors.

It is worth noting that very few investees are accepted onto platforms, and they often don't pass the due diligence checks; platforms want to ensure that they only list high quality companies. Once a project has

been accepted, the pitch materials (e.g. financials, business plan, video) need to be prepared before the pitch can be promoted to the platform's investors. The investee will only receive the funds once they have reached or exceeded their funding target (this is the "all-or-nothing-rule"). If the funding target is not reached, the investee will not receive any investment. Around 30-50% of businesses that list on platforms raise enough funding; to ensure momentum, it is vital that companies have secured anchor investment of around 30% of their target funding. Businesses with no anchor investment are very unlikely to successfully fundraise. The entire process can take four to twelve months, and the campaign itself is usually live for around six weeks, including the pre-launch period (this is when anchor investment is secured, before launching to the general public).

Equity crowdfunding platforms typically offer two types of share ownership structures:

TYPES OF SHARE OWNERSHIP STRUCTURES OF EQUITY CROWDFUNDING PLATFORMS



DIRECT SHARE OWNERSHIP

The platform allows investors to directly own shares in the companies in which they invest. This may come with different rights, depending on the level of investment.

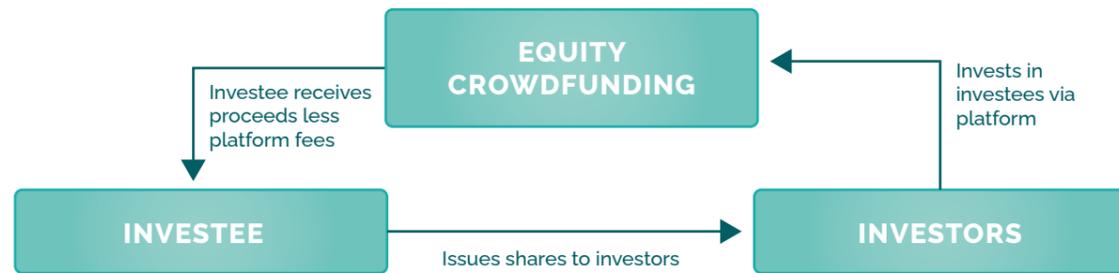


NOMINEE STRUCTURE

A legal entity managed by the platform takes ownership of, or manages, the shares on behalf of investors. This model is simpler and more efficient for investors and investees, and is becoming the industry standard.

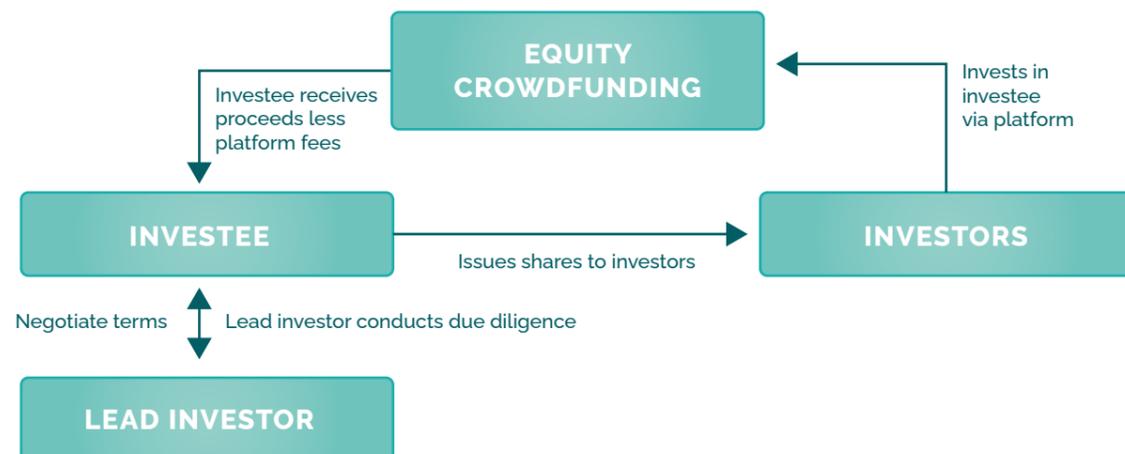
In many jurisdictions, offering these securities to the general public is regulated, due to the high risks of investing in early-stage companies – thus, these

platforms are subject to national regulations. For more details, see Section 6 on risks and regulations.

FIGURE 4: TYPICAL STRUCTURE OF THE HOSTED PITCH MODEL**► 2. Syndicate Model**

Platforms that operate this model also list pitches, but an experienced lead investor will conduct due diligence, take a material stake in the business, and negotiate the valuation and terms of the deal, before it is posted on the platform. The crowd-investor typically pays a fee to the lead investor for their work. This model is similar to the approach adopted

by angel investor syndicates, but in this case, the process takes place online, and can be more efficient than companies meeting potential investors in person. Platform examples include OurCrowd (Israel) and Syndicate Room (UK), which has since transitioned away from a crowdfunding model to a platform-managed portfolio fund.

FIGURE 5: TYPICAL STRUCTURE OF THE SYNDICATE MODEL**Equity Crowdfunding as a Top-Up Funding Mechanism for Venture Capital**

As equity crowdfunding has become more mainstream, VC funds and other institutional investors are investing alongside crowd-investors. An entrepreneur who has already secured a substantial investment from a VC can then use equity crowdfunding as a mechanism to raise additional capital from crowd-investors. The entrepreneur won't usually have to pay any fees to the platform for the investment secured before using its services. All crowd-investors should receive the same valuation as the VC investor, although terms may differ in terms of share types and rights. This recent trend might create a competitive disadvantage for energy access firms, however, since it can be hard for them to secure early VC funds.

► 3. Platform-Managed Portfolio Funds

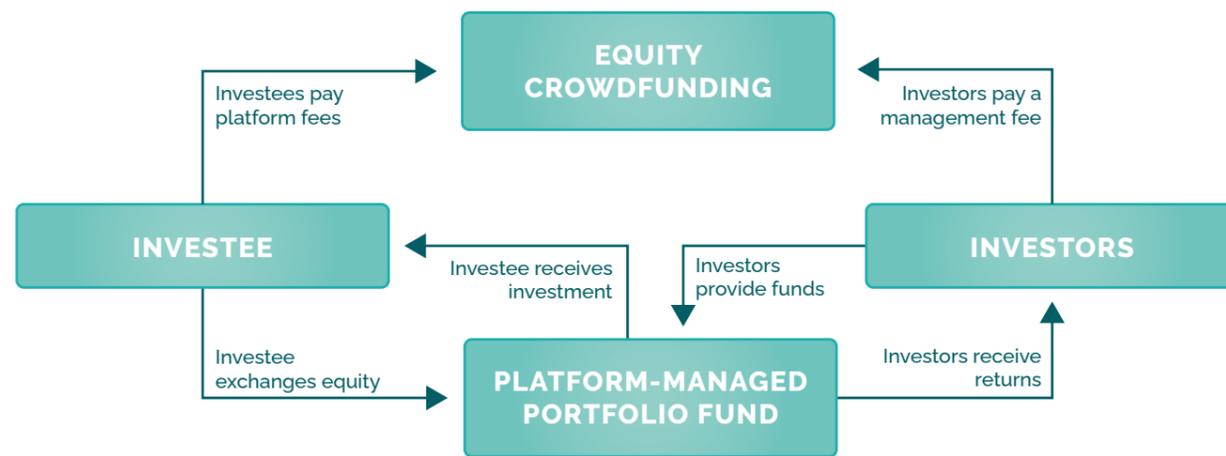
Since equity crowdfunding first emerged, platforms have developed different fund structures that enable investors to take a portfolio approach to investing in early-stage businesses. By distributing their investments across a portfolio of companies in a single fund, investors can reduce risk: their investment is diversified, and their returns are based on the performance of the portfolio as a whole. This typically ranges from twenty-five to fifty investments per fund.

In this model, the platform has a fiduciary duty to act in the interests of investors, and an additional layer of due diligence is expected by regulators. Unlike the hosted pitch model, the platform operating this model is typically considered a fund manager, and is therefore subject to asset management rules. Alternatively, the platform may delegate the fund's management to a licensed firm. Fund managers

are subject to strict business conduct rules, such as conflicts of interest, risk management, disclosure rules, and prudential requirements, like minimum capital requirements.¹¹

Through this model, funds can potentially be deployed more quickly, which benefits investees. For investors, this model may reduce risk and increase efficiency. Crowdcube and Seedrs (UK) have offered a number of diversified funds over the years. Other early-stage investors (e.g. angel investors, VC funds) may also co-invest alongside the crowd. Some platforms offer both the hosted pitch model and platform-managed portfolio funds; it should be noted, however, that their due diligence obligations differ. In the hosted pitch model, the due diligence on business model viability is the investors' responsibility, while for platform-managed portfolio funds, this type of due diligence is the platform's (or appointed fund manager's) responsibility.

¹¹ The fund managed by Syndicate Room, called Access EIS, is considered an alternative investment fund (AIF), for the purposes of the Alternative Investment Fund Managers Directive (2011/61/EU) (AIFMD).

FIGURE 6: TYPICAL STRUCTURE OF THE PLATFORM-MANAGED PORTFOLIO FUND

Source: Schizas, E. (2019). Cambridge Centre for Alternative Finance. FinTech and Regulatory Innovation online programme.

Expert Insight: From Syndicate Model to Platform-Managed Portfolio Funds

Tom Britton – CEO, Syndicate Room

Syndicate Room was founded in 2013, and was one of the first equity crowdfunding platforms to utilise the syndicate model. In 2019, the platform began to transition from the syndicate model, and now exclusively operates on the platform-managed portfolio fund model.¹² Tom Britton, CEO of Syndicate Room, explained that the reason for the shift was the rapid access to capital needed by investees. He believes that completing an equity crowdfunding round can take too much time, and the risk of an unsuccessful raise is too high. Syndicate Room's fund is designed to reduce uncertainty for investee companies, while making it easier for investors to spread their risk across multiple investments. Syndicate Room identifies and vets potential transactions, and invests crowd-investors' funds alongside leading angel investors' and VC's funds. Both angel investors and Syndicate Room originate these deals. The transition to the platform-managed portfolio funds approach has allowed Syndicate Room to become a much leaner company, by reducing headcount and operating expenses.

12. Crowdfunder (October 2019). *SyndicateRoom Email Indicates Shift to "Fund First Approach" to Investing*. Retrieved from <https://www.crowdfunder.com/2019/10/153553-syndicatoroom-email-indicates-shift-to-fund-first-approach-to-investing/>

Using a Specialist or Generalist Equity Crowdfunding Platform

Investees may have to choose between a (more common) all-purpose platform, and a specialised platform, which focuses on a particular theme (e.g. renewable energy, sustainability, social enterprise). All-purpose platforms usually have a much bigger crowd-investor base, which increases the chances that the project reaches its target amount. Currently, there are no crowdfunding platforms that focus on energy access crowdfunding across funding models, and the specialised platforms in the energy access sector are debt-based. It is unlikely that a specialised platform focussed on energy access would have enough deal flow to be commercially viable. It also wouldn't offer investors a high level of investment diversification. It is important to note that debt-based crowdfunding platforms (e.g. Energise Africa, Trine, Charm Impact) have been successful, demonstrating that there is demand from a niche crowd-investor base with a desire to fund and support energy access projects. These can provide funding, support and valuable feedback – please refer to the expert insight below.

Expert Insight:

The Growth of Specialist Crowdfunding Platforms in the Energy Access Sector

Gavriel Landau – Co-Founder, Charm Impact

The advantages of using a platform specialising in the energy sector are multifold. Firstly, the platform is familiar with the risk-return profile that its crowd-investors are interested in. Crowd-investors often have the right risk appetite for this type of company; plus, they can compare different projects within the sector, rather than across many different industries (as on traditional equity platforms). It is quite common for Charm's crowd-investors to have some existing understanding of the off-grid energy sector, which alleviates the burden on the fundraising company to explain and demonstrate their business concept.

2.4 FINANCING INSTRUMENTS

Equity financing instruments vary widely across platforms and jurisdictions, and there is no predefined, orthodox equity crowdfunding share structure. Most platforms offer investors equity shares, although some platforms offer hybrid instruments, like convertible notes and profit-participating loans. The investee company may issue shares with different voting rights (called a dual-class structure), whereby some share classes come with voting rights, while others do not. As mentioned in the previous section,

some platforms utilise a nominee structure, while others offer direct ownership.¹³

Platforms allow investors to take a stake in the companies that they invest in (either directly or through a nominee), in the hope that the companies will increase in value. At the end of a funding round, an investor may decide not to go ahead with their investment, meaning the total final investment amount may be slightly less than the amount raised on the platform.

13. Since recently, Seedrs allows investees to offer their investors direct ownership of shares (i.e. outside the nominee structure) if they invest above a certain threshold determined by the investee. All those who invest below the threshold hold their shares through the nominee. Crowdfunder (November 2019). *Long Known for its Nominee Structure, Seedrs Adds Direct Investment Option for Issuers, Investors*. Retrieved from <https://www.crowdfunder.com/2019/11/153954-long-known-for-its-nominee-structure-seedrs-adds-direct-investment-option-for-issuers-investors/>

Shareholders may earn a return on their investment if a liquidity event (e.g. an acquisition) occurs, but shares issued via equity crowdfunding platforms are generally illiquid. Recognising this, some platforms (e.g. Seedrs) have established secondary markets to allow shareholders to sell their shares to other investors; still, secondary markets are not active enough to guarantee liquidity. Platforms using hybrid

financing instruments allow investors to acquire shares in the investee's future cash flows, without giving them voting rights.

Several financing instruments are utilised by equity and investment-based crowdfunding platforms. These include:

INSTRUMENT	CHARACTERISTICS
Direct share ownership	Crowd-investors directly own shares in the companies they invest in. The shares can be either Class A or Class B shares. In some cases, investees issue dual class shares, whereby different investors have different rights.
Equity shares through a nominee structure	The crowdfunding platform or a connected entity is a legal shareholder, holding the shares on behalf of and for the benefit of crowd-investors. Class A shares are usually issued.
Hybrid instruments	These are financial instruments that lie between debt and equity (e.g. profit participating loans, profit participation rights, silent partnerships and convertible loan notes).

Equity and equity-like crowdfunding is much riskier than reward-based crowdfunding, which offers a tangible reward (e.g. a product), and (pure) loan-based crowdfunding, which offers a fixed financial return. The high risk-return profile of investments in equity crowdfunding explains why this model has the highest average deal size¹⁴, and has come under the most stringent regulatory scrutiny (see Section 7).

► 1. Direct Share Ownership

Equity crowdfunding platforms often adopt this model, whereby investors directly own their shares. While some platforms issue one type of share to all investors (either Class A or Class B shares),

some platforms allow companies to use a dual class structure. For example, Class A shares may be issued to those investing over a certain threshold (e.g. \$5,000), while Class B shares may be issued to those who invest below it. A dual class structure may be used to manage voting rights and reduce the complexity of managing hundreds or thousands of individual investors.

In a dual class structure, Class A shares typically have more rights, while Class B shareholders are likely to have reduced involvement in future decision-making. This may be detrimental to Class B shareholders, if it increases dilution or weakens their ability to invest in future rounds. Due to its greater simplicity in decision-making, however, it acts as an alternative to the nominee structure described below.

¹⁴ In the UK, the average deal size was reported to be £975,000 in 2018. Beauhurst (June 2019). *Top investor types: what does an average deal look like?*. Retrieved from <https://www.google.com/search?q=average+deal+size+in+equity+crowdfunding&dq=average+deal+size+in+equity+crowdfunding&saqs=chrome.69i579175oj4and-sourceid=chrome&ie=UTF-8>

TABLE 7: THE RIGHTS OF DIFFERENT SHARE CLASSES

FEATURE	DEFINITION	CLASS A SHARES	CLASS B SHARES
Pre-emption rights	Shareholders have the right of first refusal over the issue of new shares in the company's capital; this helps to protect shareholders' ownership from being diluted without their consent.	Typically have	Typically don't have
Risk of dilution	When a company issues new shares, the existing shareholders' ownership percentage decreases, unless they purchase more shares.	Both share types risk dilution, but B shares are more at risk	
Voting rights	Holders of voting shares can influence the company's decisions – e.g. whether to accept an acquisition offer by another company or group of investors.	Typically have	Typically don't have
Tag-Along rights	Tag-Along rights provide protection to small investors. They ensure that if the major shareholder decides to sell their stake in the company for a certain price, all shareholders have the option to sell at that same price.	Typically have	May not have
Drag-Along Rights	Drag-Along rights mean that if a majority shareholder decides to sell the company, they can require all shareholders to sell their stakes, at the same price.	May not have	Typically have

► 2. Equity Shares Through a Nominee Structure

The nominee structure has evolved due to concerns that direct ownership can result in a large number of investors (with a small stake in the company) being left alone to manage investment administration, monitor their portfolio and enforce their shareholder rights. Proponents of the nominee structure believe that a lack of coordinated effort between investors can result in the abuse of minority shareholder rights. This may be exacerbated as individual investors continue to diversify their portfolios.

A dispersed shareholder structure also increases the administrative burden on the investee: obtaining consent or votes from large numbers of investors is often taxing. Plus, private equity investors are often reluctant to invest in companies with complex corporate structures.

A nominee structure aims to address these concerns. The platform is appointed as a nominee, which legally owns the shares as a separate legal entity. The nominee acts on behalf of crowd-investors, who hold beneficial ownership of the entity and underlying assets (e.g. shares). The nominee exercises shareholder rights on behalf of the investors and monitors the performance of the investee. The nominee structure also aims to align the interests of the platform and investors, so that both parties have a vested interest in the performance of the investments post-money, while platforms that only offer direct shareholdings do not have a financial interest in long-term company performance.

Under this structure, administrative activities related to share ownership are handled by the nominee in exchange for a fee and/or a portion of the return on investment. The crowd-investor can also benefit from tax relief, where available. If the nominee company (i.e. the platform) becomes bankrupt, the shares are treated separately and transferred to the crowd-investors.

► 3. Hybrid Instruments

Some platforms use hybrid (or mezzanine) financial instruments, which stand between equity and debt, to avoid having too many investors on the cap table,

and to enable investees to retain control by not providing voting rights to lots of investors.

Hybrid financial instruments are less common globally, but are the dominant type of instruments used in some countries, such as Germany. This is usually due to regulatory requirements on the types of securities that can be issued via equity crowdfunding platforms. In these countries, there is a legal requirement for public notaries to transfer shares in private limited liability companies. A public notary is a person authorised by the state to perform certain legal formalities, especially to draw up or certify contracts, deeds, and other documents. Notaries not only raise costs of issuance, but also require crowd-investors' physical presence, which is incompatible with the digital nature of crowdfunding. Equity crowdfunding is therefore not viable in countries like Germany, so hybrid instruments have emerged as a work-around for the legal requirement of a notary.

Examples of hybrid instruments include:

1. Profit participation rights and silent partnerships
2. Convertible loan notes
3. Profit-participating loans
4. Subordinated loans

Profit Participation Rights and Silent Partnerships

A crowdfunding financial contract can replicate an equity share by allowing investors to participate in the future cash flows of the company, and in the increase in company value during the contract's lifespan. Since investors in these instruments typically have limited voting rights, the investee avoids a cumbersome decision-making process, which can occur when consent from a large investor base is required (such as in direct share ownership). These contracts are also usually exempt from the requirement of certification by a public notary, otherwise required in some countries. Africa GreenTec, a supplier of mobile and scalable solar containers for the power supply of villages in rural Africa, has offered its investors the opportunity to acquire profit participation rights since 2020.¹⁵

¹⁵ Retrieved from <https://africagreentecinvestments/unternehmensbeteiligung1/>

Convertible Loan Notes

Convertible loan notes are a less common equity instrument, issued by platforms including Seedrs and OnePlanetCrowd. They are debt-based instruments that convert to equity in the future, depending on

a number of pre-set conditions. They are primarily used to help investees and investors delay a finalised valuation of the business, until further progress has been made.

TABLE 8: KEY FEATURES OF CONVERTIBLE LOAN NOTES

Valuation cap	This is a contract term that allows a cap or ceiling on the valuation of the firm, at the next round of funding.
Conversion discount	Assuming earlier-stage investors deserve greater return/upside for their risk capital than later-stage investors, conversion discounts mean that when the financing round is priced, investors can receive a discount at a pre-agreed percentage of the share price of the future round (e.g. a 20% discount on a share price of \$1 would be \$0.8 per share).
Qualified financing/ conversion event	This defines the conditions under which the convertible loan converts to equity. It typically converts under two conditions: i) the company completes a qualified financing round of a given amount of funding, or ii) the lender decides to convert their debt into equity.
Repayment terms	As with other debt instruments, the repayment terms will outline the time, minimum payment period, price (APR) and penalties for non-repayment of the loan if it does not convert to equity.
Principal amount	The amount borrowed, or the part of the amount borrowed that remains unpaid (excluding interest).
Maturity date	The date when the principal amount of a convertible note becomes due.
Interest rate	A charge for borrowing money, usually expressed as an APR.

Source: Feld, B., and Mendelson, J. (2019). *Venture deals: Be smarter than your lawyer and venture capitalist*. John Wiley and Sons.

upon successful exit, etc.). Econeers, a German crowdfunding platform specialised in clean energy, offers this type of instrument alongside subordinated loans, due to German regulatory requirements.¹⁷

Subordinated Loans

Subordinated loans are mezzanine instruments which allow investors to earn fixed interest. They are often considered high risk investments: similar to equity, in the case of default, the investors' claim on the investee's assets is subordinate to the claims of other lenders, which are repaid first in case of liquidation or bankruptcy. As a consequence, investors in subordinated loans are usually compensated by higher returns, as compared to ordinary, primary, lenders. Oliver Percl of Crowd4Climate noted that an advantage of this is that investees are more likely to obtain subsequent financing from a bank, which considers subordinated loans similar to equity. This type of instrument is used by some of the major crowdfunding platforms with a clean energy focus (e.g. Crowd4Climate, Bettervest, and Greenvesting).

2.5 REVENUE MODELS FOR PLATFORMS

The platforms generate revenue in a number of ways. Their main source of revenue is the fee paid upon the completion of a successful funding round; this can incentivise platforms to launch and fund as many companies as possible, without needing to focus on the ongoing performance of investees to generate platform revenue. This model may raise conflict of interest concerns for investors and donors alike, however. While overall platform performance, and reputation, will impact platform revenue indirectly, the time lag of portfolio performance issues can delay the market's (i.e. investors') response to poor performance. Some platforms (e.g. Seedrs) derive revenue from investors upon exit, instead, which can better align the platform's interests with the investors'.

The UK Government recently established its Future Fund. This intends to match £250 million (\$320,925) of private investments, through convertible notes in start-ups that meet predefined criteria. A successful raise on a crowdfunding platform can be matched with government-issued convertible loans, ranging in value from £125,000 to £5 million (\$160,462 – \$6.41 million).¹⁶

Profit-Participating Loans

Unlike typical debt instruments, which offer fixed interest investments, profit-participating loans offer a rate of interest which partially depends on the investee's future profits. Additional interest linked to the company's performance can be paid at various stages (e.g. upon the termination of the loan agreement, after the minimum contract period,

16. Retrieved from <https://www.seedrs.com/insights/investing-features-insight/heres-what-you-need-to-know-about-investing-alongside-the-future-fund>

TABLE 9: EQUITY CROWDFUNDING PLATFORMS' REVENUE MODELS

FEE TYPE	INVESTEES FEE	CROWD-INVESTOR FEE
Onboarding fee	Rare, but some platforms charge a fixed fee for listing on their platform (e.g. \$10,000).	N/A
Campaign- related fees	Fee for advisory/pitch preparation services (e.g. financial models, info documents, video, marketing, promotion, investor introductions). Applicable even if the campaign is unsuccessful.	N/A
Arranger fee	Fee for including external, pre-secured (often institutional) investors – this will typically be less than the normal fees (0-5%). Not always applicable.	N/A
Success/ investment fee	Fee upon successful completion of funding (typically 5-10% of total funds raised).	Typically 0.5-2%.
Completion fee	Fee for administrative work after the campaign, such as execution of shareholder agreements (e.g. Seedrs charges £2,500 (\$3,200), and Crowdcube charges 0.75% -1.25% of funds raised). Sometimes this includes fees for the third-party payment provider, while sometimes this fee is charged separately (typically 0.3-2.9%).	N/A
Fee charged on exit ('carry' fee)	N/A	Fees paid for a significant funding event, e.g. exit, trade sale or IPO (typically 5-7.5% on any profit)
Management fee	N/A	Annual fund management fee (typically 0.5-2%). Only applicable to platform-managed portfolio funds.
Fee for hybrid instruments	N/A	Fee as a portion of the interest payments to crowd-investors, where a hybrid instrument is issued – e.g. convertible loan notes.

17. Retrieved from <https://www.econeers.de/>

3

EQUITY CROWDFUNDING MARKET

3.1 GLOBAL MARKET TRENDS

Globally, from 2012 to 2020, equity crowdfunding raised an estimated \$10.8 billion, across many different industry sectors.¹⁸ In the early years, equity crowdfunding grew rapidly year-on-year, with a total peak to date of \$2.25 billion raised in 2016.¹⁹ From 2018 to 2020, the average volume of funds raised dropped to \$1.4 billion.²⁰

Figure 7 aggregates annual equity crowdfunding volumes by region (or country) between 2012 and 2018, to show the concentration of activity globally.²¹ The figures peaked in 2015 due to a high level of activity in China; this has since reduced, due to China's regulatory uncertainty around this type of fundraising activity. The USA and UK are the two largest equity crowdfunding markets globally, while substantial amounts of funding have been raised by companies in the rest of Europe and across Asia (outside of China). Very limited levels of funding have been raised in Africa and in the Americas outside of the USA.

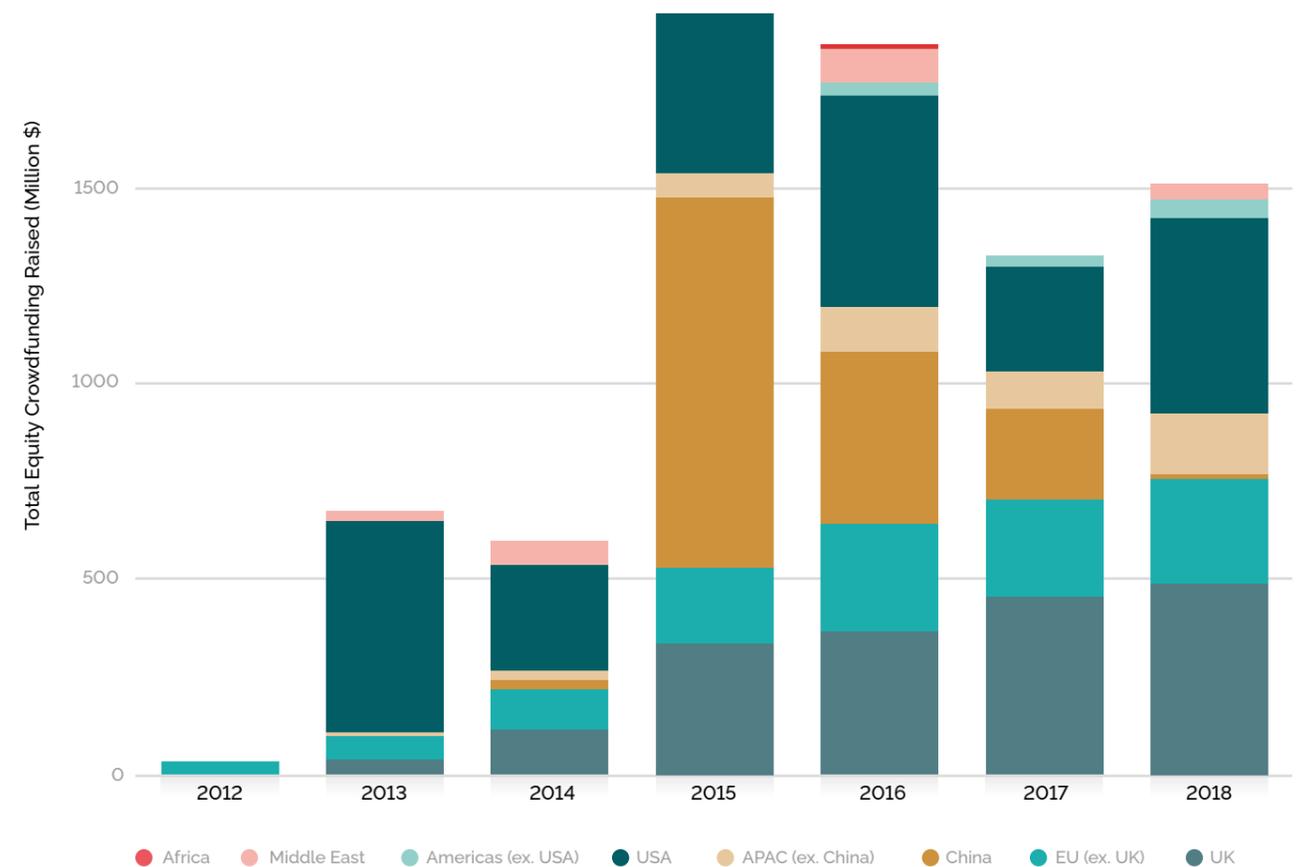
18. Aggregated statistics from the Alternative Finance Benchmarking Reports (Cambridge Centre for Alternative Finance).

19. Aggregated statistics from the Alternative Finance Benchmarking Reports (Cambridge Centre for Alternative Finance).

20. Cambridge Centre for Alternative Finance (2021). *The 2nd Global Alternative Finance Industry Report*, p. 41. Retrieved from <https://www.jbs.cam.ac.uk/wp-content/uploads/2021/06/ccaf-2021-06-report-2nd-global-alternative-finance-benchmarking-study-report.pdf>

21. The Cambridge Centre for Alternative Finance methodology of delineating regions changed in 2019, which unables the comparison of equity crowdfunding volumes in Africa and Middle East before and after 2019, as well as identifying whether the share of these regions in global volumes changed in 2019 and 2020.

FIGURE 7: TOTAL EQUITY CROWDFUNDING VOLUMES RAISED GLOBALLY, 2012-2018



Source: Data Aggregated from the Cambridge Centre for Alternative Finance Benchmarking Reports 2012-2018

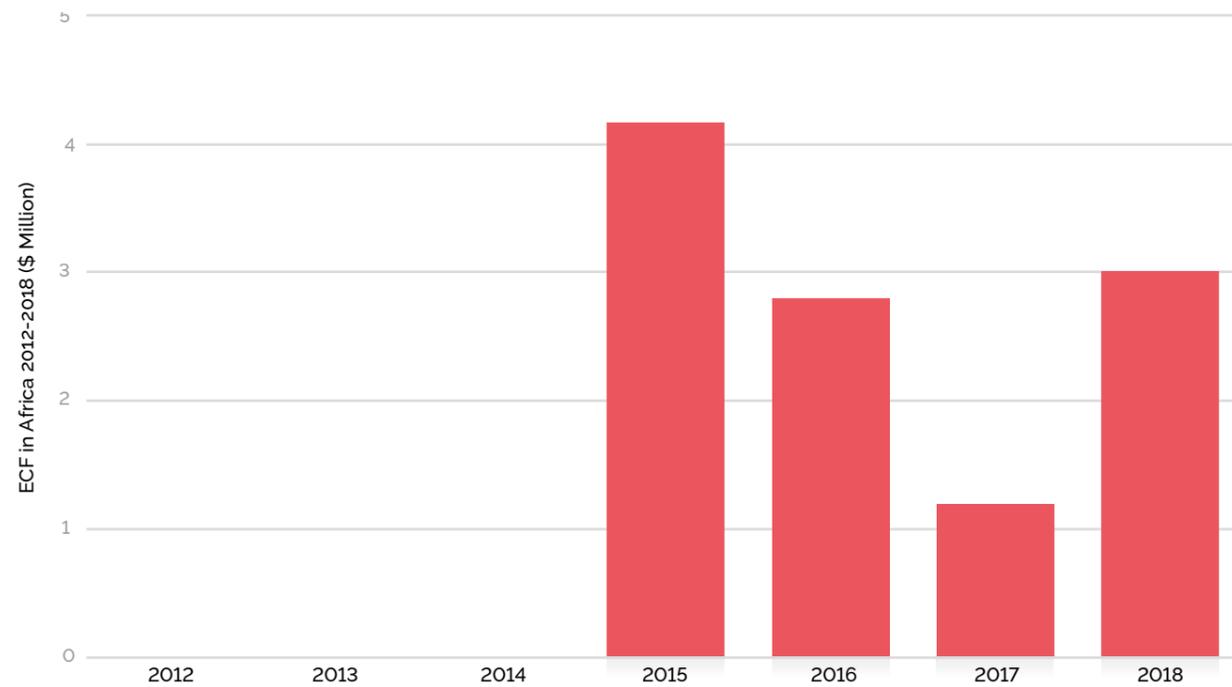
3.2 AFRICA'S CROWDFUNDING MARKET

Sub-Saharan Africa-based platforms account for around 0.1% of equity crowdfunding volumes globally. There are a number of reasons for this, not specific to the crowdfunding market. These include and are not limited to: low GDP per capita, low savings rates, less developed capital markets, and low levels of financial literacy amongst retail investors. According to limited available data, across the entire African continent, a total of \$2.81 million was raised via equity crowdfunding in 2016, \$1.2 million in 2017, and \$3

million in 2018, across all business sectors.²² However, this data doesn't include fundraising by companies operating in Africa that raised funds internationally. Our analysis of all eighteen energy access-related campaigns found that all these companies used platforms with headquarters outside of sub-Saharan Africa. Equity crowdfunding tends to be used by companies operating in sub-Saharan Africa that are incorporated in a 'crowdfunding-friendly' jurisdiction, such as the UK. In these cases, investors are also based outside of Africa.²³

22. Data for this chart is aggregated in this spreadsheet with links to relevant sources: <https://docs.google.com/spreadsheets/d/1kZdn3sRK28e4q3J-tbFQMmp4gx-583Bn-sEYKGiCPUQ/edit#gid=0>

23. Cambridge Centre for Alternative Finance (2020). *Global Alternative Finance Benchmarking Report*, p. 181. Retrieved from <https://www.jbs.cam.ac.uk/wp-content/uploads/2020/08/2020-04-22-ccaf-global-alternative-finance-market-benchmarking-report.pdf>

FIGURE 8: TOTAL EQUITY CROWDFUNDING VOLUME IN AFRICA, 2012-2018

Expert Insight: Equity Crowdfunding Platforms Operating in Africa

Elizabeth Howard – CEO, African Crowdfunding Association (Industry Assoc.)



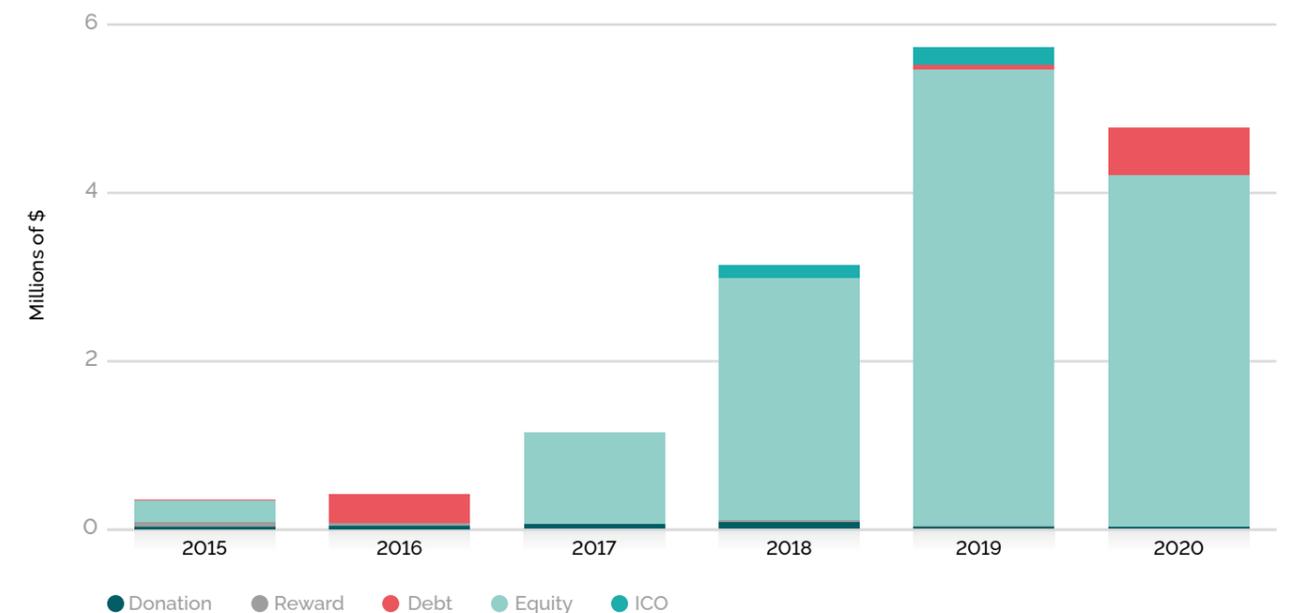
In the African Crowdfunding Association, there are currently five equity crowdfunding platforms with headquarters in Africa: Kiro'o Rebuntu in Cameroon, Uprise.Africa in South Africa, Crowdax (Ortus Africa Capital) in Uganda, Wengi Equity Crowdfunding in Tanzania, and Lloyd Corporate Capital in Zimbabwe. Some platforms that fund companies in Africa, however, list holding companies outside of Africa – in Europe for example – to fund ventures operating in Africa. Afrikwity, for example, is headquartered in France, but funds a number of retail, agriculture, technology and sustainability companies in North Africa. Its investors are mostly based in France, and its marketing directs them particularly to diaspora communities. Similarly, Koodoo Global is an Estonian-based equity crowdfunding platform that intermediates finance for businesses in South Africa.

3.3 THE ENERGY ACCESS CROWDFUNDING MARKET

Energy access companies raised \$159 million via crowdfunding between 2015 and 2020. Debt-based crowdfunding accounts for 89% of all funds raised, and grew twenty-fold from 2015 to 2019. This was partly due to the high debt capital needs of many companies in the energy access sector, and the high demand for debt-based impact investments from retail investors in Europe. Equity crowdfunding accounted for 6% of all energy access-related crowdfunding, while together, donation and reward crowdfunding and initial coin offerings (ICOs), accounted for 5%.

Energy access companies raised \$10 million via equity crowdfunding from 2015 to 2020. \$5.7 million was raised in 2020 alone, signaling the opportunity that the Covid-19 pandemic presented to equity crowdfunding platforms. The world's largest platform, the UK-based Crowdcube, had two record quarters in 2021, with revenue increasing by up to 30%.²⁴ The acceleration in activity may have resulted from the constricted flow of investment in the start-up ecosystem, as many investors paused new deals due to increased uncertainty. This theory mirrors pre-pandemic research by Energy 4 Impact, which showed that many entrepreneurs use equity crowdfunding as a "last resort", after approaching private investors such as impact funds and venture capital firms.

²⁴ <https://www.crowdcube.com/explore/blog/crowdcube/crowdcube-q4-2020-update>

FIGURE 9: TOTAL ENERGY ACCESS FINANCING VIA CROWDFUNDING, 2015-2020

Source: Energy 4 Impact – Crowd Power (2021). Crowdfunding, Energy Access, State of the Market Report 2020-2021.

4

ENERGY ACCESS SECTOR
SUITABILITY4.1 EXAMINING ENERGY
ACCESS-RELATED EQUITY
CROWDFUNDING

Within the energy access sector, there are a range of companies utilising different business models, selling different technologies, and operating at different points across the company lifecycle. Equity crowdfunding can be a good option for firms promising high financial return potential, offering innovative technologies, and providing crowd-investors with a pathway to exit. In contrast, firms that use standard technologies, generate predictable income streams and present a low likelihood of exit are generally less attractive to crowd-investors (and may be better suited to debt finance).

According to existing academic literature, the following characteristics make investees suitable for equity crowdfunding:

- **Company maturity.** Although equity crowdfunding can be viable at different stages of maturity, the firm's age was found to be positively correlated

with likelihood of success²⁵ – particularly for crowdfunding offerings greater than \$0.5 million.²⁶ Two thirds of energy access-related campaigns have been by companies raising pre-Series A rounds; on average, they were founded 3.6 years prior to the campaign.

- **Predictability of exit and number of planned years to exit.** One study found that a disclosed intention to have an IPO exit strategy attracts more investors.²⁷ A related study shows that projects with an exit intention longer than five years attracted fewer investors, as opposed to those predicting an earlier exit.²⁸ However, no studies found evidence that planned exit channels affect the absolute amount raised.
- **Generated revenue and profitability.** Depending on the size of the crowdfunding offer, the existence of profits is not a precondition for a successful campaign. However, evidence shows that for bigger offerings (> \$0.5 million), the revenue generated in the year preceding capital raising affects the likelihood of success.²⁹ Similarly, it was found that profitability increases the chances of crowdfunding success.³⁰
- **Growth orientation.** Equity crowdfunding is often viewed as a funding mechanism for firms promising high financial returns but assuming high risk – i.e., firms with strong growth orientation. One study found that an intention to use the proceeds of funding for working capital increased chances of success, probably since working capital signals growth.³¹ This finding is particularly relevant to PAYGo SHS ventures.

- **Degree of innovation.** More innovative companies have a higher growth potential, attracting crowd-investors interested in high risk-high return investment opportunities. While existing evidence is inconclusive, some studies find that technology ventures and ventures holding intellectual property rights are more likely to succeed in equity crowdfunding campaigns.³² Anecdotal evidence based on successful energy access-related campaigns also suggests this.

In principle, equity crowdfunding is more suitable for investees which are post-revenue and have completed product and market validation. Successful firms typically use the funds for company growth and market expansion. A firm's track record, financials and customer base are also important markers of success. In contrast, early-stage investees that have generated early cash flows, typically through a cash sales revenue model, and are in need of bridge funding in the market validation stage, are better suited for debt-based crowdfunding, if they can demonstrate loan servicing.³³

Academic literature on equity crowdfunding's suitability for energy access firms is lacking. It is useful, therefore, to consider the energy access companies that have successfully used equity crowdfunding to date. As mentioned, there have been eighteen campaigns, which have raised over \$15.6 million for companies in the sector since 2012. These are listed in the table below.

25. Nitani, M., and Riding, A. (2017, April). On Crowdfunding success: firm and owner attributes and social networking. In *2017 Emerging Trends in Entrepreneurial Finance Conference*.

26. Chen, J. (2018). *Crowdfunding without intermediation*. Working paper available at <https://pdfs.semanticscholar.org/3e73/20576c3dd9435ebfa3d9823dd355bab940f8.pdf>

27. Ahlers, G. K., Cumming, D., Günther, C., and Schweizer, D. (2015). Signaling in equity crowdfunding. *Entrepreneurship theory and practice*, 39(4), 955-980.

28. Vismara, S. (2016). Equity retention and social network theory in equity crowdfunding. *Small Business Economics*, 46(4), 579-590.

29. Chen, J. (2018). *Crowdfunding without intermediation*. Working paper available at <https://pdfs.semanticscholar.org/3e73/20576c3dd9435ebfa3d9823dd355bab940f8.pdf>

30. Nitani, M., and Riding, A. (2017, April). On Crowdfunding success: firm and owner attributes and social networking. In *2017 Emerging Trends in Entrepreneurial Finance Conference*.

31. Nitani, M., and Riding, A. (2017, April). On Crowdfunding success: firm and owner attributes and social networking. In *2017 Emerging Trends in Entrepreneurial Finance Conference*.

32. Le Pendeven, B. (2016). Equity crowdfunding: Impact of the innovation degree on fundraising campaigns. In *ICIE 2016 Proceedings of the 4th International Conference on Innovation and Entrepreneurship: ICIE2016* (p. 335). Academic Conferences and publishing limited; Ralcheva, A., and Roosenboom, P. (2016). The role of certification for equity crowdfunding success. In *Paper presents at the 33rd International Conference of the French Finance Association, May, Liège*.

33. Paschen, J. (2017). Choose wisely: Crowdfunding through the stages of the startup life cycle. *Business Horizons*, 60(2), 179-188.



TABLE 10: SUCCESSFUL ENERGY ACCESS-RELATED EQUITY CAMPAIGNS

COMPANY	FOUNDED	BUSINESS MODEL	REVENUE MODEL	FUNDING ROUND	AMOUNT RAISED	PRE-MONEY VALUATION	PLATFORM	YEAR
Gnugrid	2016	Fintech	PAYG	Seed	€50,000 (\$60,700)	€5,000,000 (\$6,070,000)	Wajenzi Fund (Netherlands)	2021
Soco	2016	CCS	Cash sales	Seed	€70,000 (\$84,980)	€1,000,000 (\$1,214,000)	Wajenzi Fund (Netherlands)	2021
Future Pump	2011	PULSE	Cash sales, PAYG	Series A	€699,565.39 (\$973,326)	€4,600,000 (\$6,400,115)	Crowdcube (UK)	2021
Rural Spark	2013	Next-generation off-grid utilities	PAYG	Seed	€800,000 (\$971,324)	Unavailable	Symbid (Netherlands)	2021
Africa Greentec	2015	Next-generation off-grid utilities	Service fee	Series A	€4,213,500 (\$4,803,390)	€35,000,000 (\$39,900,000)	Africa Greentec (Germany)	2021
Charm Impact	2018	Fintech	Investment services	Seed	£243,060 (\$312,016)	£2,550,000 (\$3,273,433)	Crowdcube (UK)	2020
M-Power	2017	SHS	PAYG	Seed	£421,520 (\$541,105)	£5,022,938 (\$6,447,942)	Crowdcube (UK)	2020
Open Energy Labs	2017	Energy Education and Training	Cash sales	Seed	£120,000 (\$154,044)	£850,000 (\$1,091,145)	Crowdcube (UK)	2020
Hycube	2014	Next-generation off-grid utilities	Cash sales	Series B	€1,625,037 (\$1,855,792)	€18,000,000 (\$20,555,997)	Seedrs (UK)	2020
Lendahand	2011	Fintech	Investor	Series B	€1,226,061 (\$1,400,161)	€17,500,000 (\$19,984,990)	Seedrs (UK)	2020
Renovagen	2012	Next-generation off-grid utilities	Cash sales	Bridge	£410,000 (\$526,000)	£3,500,000 (\$4,490,248)	Crowdcube (UK)	2019

Renovagen	2012	Next-generation off-grid utilities	Cash sales	Seed	£986,000 (\$1,281,000)	£2,870,000 (\$3,728,671)	Crowdcube (UK)	2016
Buffalo Grid	2011	PULSE	Service fee	Seed	£496,000 (\$643,000)	£1,800,000 (\$2,333,467)	Crowdcube (UK)	2016
WakaWaka	2012	Pico solar	Cash sales	Series A	€1,123,000 (\$1,194,000)	Unavailable	One- planetcrowd (Netherlands)	2016
TRINE	2015	Fintech	Investor	Pre-seed	€72,400 (\$77,268)	€612,000 (\$653,149)	Funded By Me (Sweden)	2015
Renovagen	2012; voluntary liquidation Jun 2021	Next-generation off-grid utilities	Cash sales	Seed	£263,000 (\$416,000)	£1,400,000 (\$2,214,448)	Crowdcube (UK)	2014
Shamba Tech	2009; dissolved Jan 2019	SHS	Cash sales	Seed	£112,600 (\$185,000)	£630,000 (\$1,035,080)	Crowdcube (UK)	2014
WakaWaka	2012	Pico solar	Cash sales	Seed	€75,000 (\$97,500)	€3,000,000 (\$3,900,000)	Symbid (Netherlands)	2012



These campaigns were typically by companies incorporated in the same country as the platform they listed on. Investment was typically raised at the holding company level. The successful campaigns include the UK-based companies Buffalo Grid, which operates a fee-for-service solar phone charging and wifi service, and Open Energy Labs, which teaches students how to build and maintain a renewable energy supply. Switzerland-based company M-Power, which operates a business-to-business model and provides financing to local distributors that sell solar kits on a lease-to-own basis, is another successful example. The Netherlands-based WakaWaka has successfully used equity, debt and reward crowdfunding to raise \$2.5 million, including their \$97,500 equity seed round via Symbid and \$1.2 million convertible note raise via OnePlanetCrowd.

Interestingly, three of the major debt crowdfunding platforms in the energy access sector have used equity crowdfunding to raise capital. Sweden-based TRINE used the Symbid platform to raise a pre-seed round of \$77,268, which acted as TRINE's proof of concept prior to the launch of its own platform. The UK-based early-stage and local company-focused platform, Charm Impact, raised a \$312,016 seed round on Crowdcube in 2020. The Netherlands-based platform Lendahand raised a \$1.4 million Series B round on Seedrs in 2020. These campaigns show that equity crowdfunding can be leveraged by companies through pre-seed, seed and growth phases, and that the amount raised through successful campaigns varies greatly.

Germany-based Africa Greentec raised \$4.8 million in equity, through profit participation rights, via crowdfunding in a campaign that ran through 2020 and 2021. Africa Greentec has developed and deployed the 50 kWp Solartainer® (solar container) equipped with 67 kWh lithium-ion storage, which is designed to create a mini-grid type system to provide electricity to villages in rural regions. Their campaign differs from all other energy access-related campaigns, as the funds were raised through a "crowdfunding platform" created by Africa Greentec, called africagreentec.investments. Replicating this would require securing the relevant equity crowdfunding platform licenses, as well as having the technical know-how and a substantial supporter network; this is not something that energy access



entrepreneurs are typically best placed to do. Moreover, in many jurisdictions, equity crowdfunding platforms are not allowed to list their own projects, to prevent conflicts of interest.

We are only aware of one campaign that did not close, which was by the UK- and Rwanda-based mini-grid developer ECOPOW3R. The company received funding from a large investor, and therefore decided not to proceed with the live campaign.

Of these eighteen companies, two have since folded. Renovagen, which developed large-scale³⁴ rollaway solar systems for emergency and military deployments, entered voluntary liquidation in 2021, citing the impact of the pandemic on revenue. Renovagen had raised \$2.2 million via three equity crowdfunding campaigns. UK- and Tanzania-based Shamba Technologies, which developed modular solar systems for rural poor customers, was dissolved in 2019. The company had raised \$185,000 from equity crowd-investors.

4.2 COMPANY PROFILE & EQUITY CROWDFUNDING SUCCESS

Successful energy access-related campaigns to date demonstrate that equity crowdfunding can be used by a range of companies with different revenue models, business models and maturity levels. Yet there appear to be some prerequisites for success. The common characteristics among successful companies are:

- They have developed their own proprietary technology relating to energy and/or financing.
- They have entities incorporated in 'crowdfunding-friendly' jurisdictions (e.g. Europe) and raised capital at the holding company level. The two exceptions are Gnugrid (Uganda) and Soco (Burundi).
- They offer crowd-investors high growth potential; companies with predictable revenue streams are less appealing to crowd-investors.
- They are early-stage; two-thirds of energy access-related equity campaigns were by pre-Series A companies.

³⁴ 11kWp solar capacity and 48kWh battery capacity

- They had high quality pitch materials, including a video, and dedicated an enormous amount of time and resources to their campaign.
- They secured anchor investment prior to launching their campaign (typically 20% to 30% of their target).
- They have a high level of crowdfunding knowledge and experience.

Business Model

The investee's business model does not seem to be a decisive factor in running a successful campaign. Successful campaigns to date include PULSE, next-generation off-grid utilities and pico solar companies. There have also been successful equity campaigns by debt crowdfunding platforms focused on energy access. Nevertheless, all successful campaigns were run by companies with a focus on technology.

Company Maturity

Among energy access-related campaigns, the age of successful companies at the time of fundraising ranged from several months to nine years. The average age at the time of fundraising was four years and eight months. Investees with two years or less of operating history at the time of the campaign raised an average of \$283,000. The youngest firm to raise over \$1 million was four years old. The amount that these companies raised via equity crowdfunding differs significantly, but it is typically used for pre-Series A financing. Larger-scale fundraising tends to be secured by more specialised institutional investors.

Revenue Model

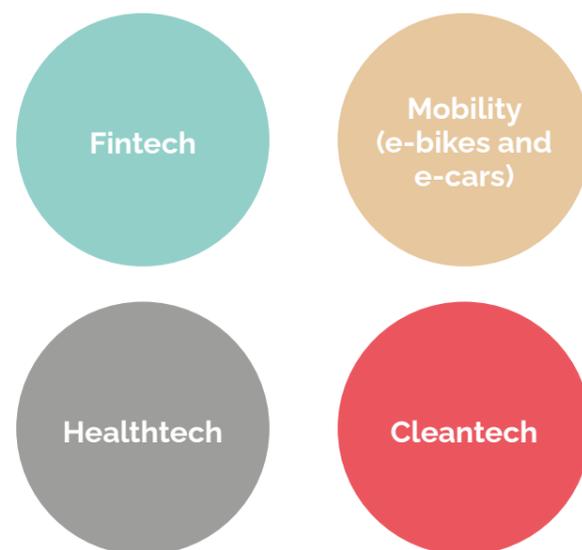
The company's revenue model, as well as the type of entity that crowd-investors participate in, does appear to shape the success of campaigns. For example, there are few cases of companies successfully raising pure equity at the project company level. Equity crowdfunding is likely to be well-suited to companies with a cash sales or PAYGo revenue model; it may also be suitable for companies with a service fee-based revenue model, where the investee has developed proprietary technology and the investor has uncapped upside potential (i.e. invests at the holding company level).

Project Finance Suitability

Among surveyed equity crowdfunding investors, the number one reason to invest is financial return

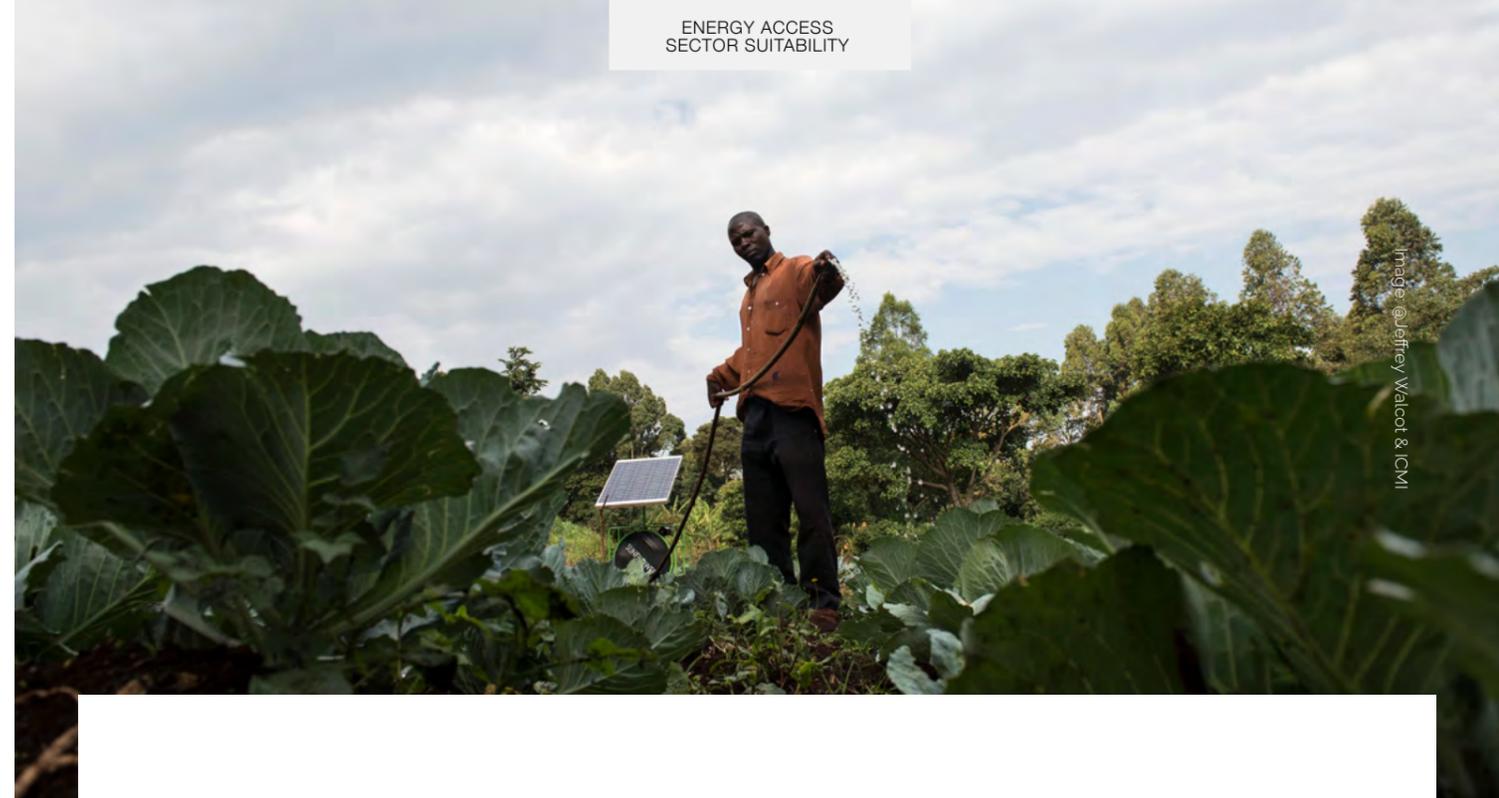
(see Section 5.0: Crowd-Investors). It is no surprise, therefore, that crowd-investors favour investees raising capital for growth, R&D and market expansion. In most cases, project finance is unsuitable for equity crowdfunding: project companies (e.g. mini-grid projects) cannot offer investors uncapped growth potential, as their income stream is relatively predictable, and the assets held by the company depreciate in value. Plus, many equity platforms require their investees to raise funds at the corporate level, and do not accept project companies. A possible exception may apply to project companies raising funds in Germany, where hybrid instruments (e.g. convertible notes, profit participation rights) are far more common. It is also important to consider the location of the project company, and if it is domiciled in a 'crowdfunding-friendly' jurisdiction.

CROWDCUBE'S MOST POPULAR SECTORS 2020



4.3 JURISDICTIONAL CONSIDERATIONS

An enabling environment is essential for platform growth. As a result, most equity crowdfunding campaigns occur on platforms located in jurisdictions with supportive legislation. Equity crowdfunding



markets remain underdeveloped in most countries, although many regulators are exploring them, to support local start-up ecosystems. When assessing a company's suitability for equity crowdfunding, there are three primary factors to consider: the location of the investee company, the location of investors (anchor investors and crowd-investors), and the location of suitable platforms.

Location of Investees

Many jurisdictions and platforms set rules on the types of investees that can list on a platform, based on the investee's country of incorporation. UK-based Crowdcube and Seedrs, for example, only accept companies from Europe; in the US, only domestic investees can raise funds via equity crowdfunding.³⁵ In some cases, a foreign company may be able to establish and restructure itself in the US, allowing it to use a US-based platform. There are examples of this approach outside the energy access sector: the South African sustainable fishing business Cape Fisheries, for instance, established an entity in the UK before launching a campaign on Crowdcube.³⁶ Please note that restructuring a company to leverage equity crowdfunding is a complex decision, and should be made in consultation with legal counsel.

Two out of the eighteen energy access-related campaigns were by companies outside of Europe. These campaigns, by Soco (Burundi) and Gnugrid (Uganda), were funded through a nominee structure (see Section 2: Equity Crowdfunding Models); Wajenzi, the platform they used, is listed on the cap table on behalf of all crowd-investors, and represents the rights of crowd-investors. A high-level understanding of a given jurisdiction's regulations are a good guide to company-platform compatibility; it is important, however, that potential campaign-makers discuss their company's structure with platforms, to understand if there is a possible workaround.

That said, equity crowdfunding platforms are highly selective about the projects they list: less than one-fifth of investees are typically accepted onto the platform following due diligence. Key risks considered during due diligence relate to the jurisdiction of core business operations. The location of a company's operations and headquarters typically informs the likelihood of its acceptance by and success on a platform. When selecting campaigns, platforms may consider the relevant countries' following characteristics: financial openness, political stability, currency exchange risks, rule of law, ease of doing business, transparency of public registries, and double taxation agreements. These are outlined below.

³⁵ The Securities and Exchange Commission (January 2021). *Facilitating Capital Formation and Expanding Investment Opportunities by Improving Access to Capital in Private Markets*. Retrieved from <https://www.federalregister.gov/documents/2021/01/14/2020-24749/facilitating-capital-formation-and-expanding-investment-opportunities-by-improving-access-to-capital>

³⁶ <https://www.crowdcube.com/companies/cape-fisheries>

TABLE 11: JURISDICTIONAL FACTORS IN CROWDFUNDING SUCCESS

FACTOR	DESCRIPTION
Financial openness	Restrictive regulations that limit free inflows and outflows of capital are a major barrier for investors. In addition to legally imposed restrictions, countries with poorly developed financial institutions typically have high transaction costs involved in sending and receiving money to or from abroad.
Political stability	This is a major systemic risk in financial markets. Equity crowdfunding is no exception. Periods of political turmoil can disrupt the normal functioning of an economy, reducing the investee's chances of achieving their ambitions and generating returns for crowd-investors.
Currency exchange risk	Stable foreign exchange policy in an investee's country is a key criterion for energy access platforms choosing where to expand their operations. Unstable foreign exchange can severely impact returns for investors.
Rule of law	This is one of the major prerequisites for the development of financial markets. Legal uncertainty in relation to contract enforcement, as well as slow and inefficient judicial systems, can reduce both crowd-investors' expected returns, and the price they're willing to pay for equity shares. Crowd-investors can price in the additional risk that they assume, reducing investee's valuations on equity crowdfunding platforms. Adequate bankruptcy laws, which allow crowd-investors to recover part of their losses from investment if a company fails, are also relevant.
Ease of doing business	The cost and effectiveness of paying tax, obtaining permits, setting up a business and other administration are important factors in determining the growth potential of an investee.
Company and other public registries	Equity crowdfunding platforms typically perform due diligence on investees before they are admitted to the platform. The first steps involve ensuring that the investee company exists, verifying its ownership structure and conducting due diligence on owners and managers. Electronic availability of reliable records means that this can be done remotely, reducing the costs of otherwise onsite checks.
Avoiding double taxation	When crowd-investors and the platform are located in one country and the investee in another, it is important that investors are not taxed twice for their capital gains.

Location of Investors

Entrepreneurs should consider the location of both their network of potential crowd-investors and their anchor investor. Research shows that investors are prone to local bias, and local investors can therefore play an important role in funding a campaign. On the other hand, securities regulation in the investor's country is, often, still applicable to investments via foreign equity crowdfunding platforms.

For example, if an investor who resides in Kenya chooses to invest in a campaign via a Swedish platform, the platform must ensure that it complies with Kenya's regulations concerning securities issuance and financial promotion. This can be an onerous and costly process for platforms, meaning many restrict the participation of retail investors from certain countries, or only allow accredited foreign

investors to participate.³⁷ For investees, it is usually easier if the anchor investor and the chosen platform are in the same jurisdiction.

Location of the Platform

Observing equity crowdfunding markets globally, the most developed markets are in countries with well-developed traditional financial markets. This suggests that investment experience, culture, and awareness among the general population plays a role in the growth of a platform, and the development of a strong crowdfunding investor base. While the involvement of small crowd-investors is important, the involvement of angel investors and VCs is at least as important, and often more catalytic, as it can be a strong quality signal to crowd-investors. Countries with a well-developed VC industry are more likely to have a prosperous equity crowdfunding market (e.g. UK, US). Exits in countries with well-developed financial markets are also much more common, which is key to attracting investment from anchor investors and crowd-investors alike.

For those considering launching a campaign in an emerging equity crowdfunding market, it may be best to choose a platform in a jurisdiction with bespoke crowdfunding regulation, or with securities issuance regulations applicable to crowdfunding, which are not overly restrictive. It is also important to choose a jurisdiction with a high rule of law ranking and strong corporate governance laws, which protect minority shareholders. This will make it easier to attract investors.

Different jurisdictions take different approaches to the tax treatment of investments in small and innovative companies. Countries offering tax incentives to crowd-investors, such as the UK's Seed Enterprise Investment Scheme (SEIS) and Enterprise Investment Scheme (EIS), will probably create a favourable climate for development of the equity crowdfunding market ([see p13 of the Equity Crowdfunding Guide for further information](#)). These countries typically have a strong start-up culture (or regulators are aiming to create one).

Different jurisdictions take different approaches to the tax treatment of investments in small and innovative companies. Countries offering tax incentives to crowd-investors will probably create a favourable climate for development of the equity crowdfunding market.

37. <https://help.crowdcube.com/hc/en-us/articles/206709610-Who-can-invest->

4.4 CLOSING THE EQUITY GAP WITH CROWDFUNDING

Energy access companies lack equity financing options, especially in the earlier stages of their lifecycle. There is insufficient grant capital to meet demand, while debt capital is typically out of reach for earlier-stage firms. In 2018, Acumen indicated that \$210 million in early-stage equity is required annually to close the energy access gap, while an average of \$16.5 million had been deployed annually (on average) in the three years preceding the report. Although equity crowdfunding can potentially fill part of this gap, it is not a standalone solution.

For suitable companies (see Section 4.2), equity crowdfunding could be used as a complementary capital channel to help early-stage firms secure funding from private and public funders. Likewise,

equity crowdfunding can be used to top up a round raised from private or public funders. A successful equity crowdfunding campaign also demonstrates commercial viability, and helps companies to access later-stage debt and equity capital. Although less common, equity crowdfunding has also been used successfully by later-stage companies, particularly as a bridge round (e.g. between Series A and Series B).

Based on market data to date, equity crowdfunding is unlikely to emerge as the solution to these companies' funding gaps – but it can, in some cases, be an additional source of equity capital. Equity crowdfunding alone may not be able to fulfil the energy access sector's financing needs, but it can make a complementary, material contribution, alongside additional grant and other equity and debt financing options.

Expert Insight: Equity Crowdfunding for the 'Missing Middle'

Greg Nau – CEO, MPower



Equity crowdfunding is really useful for financing rounds between Seed and Series A, when a firm's financing needs are too big for angel investors, but too small for larger institutional investors. For M-Power, equity crowdfunding provided a useful bridge, filling our funding gap until we were more established, with higher revenues. We found that there was plenty of debt capital available, but especially in the early stages, equity was very hard to secure. Since there are so few options out there, equity crowdfunding can help to fill this 'missing middle' equity funding gap.



5

CROWD-INVESTORS



5.1 INVESTOR PROFILE & BEHAVIOUR

Equity crowdfunding is a unique form of investment, allowing everyday retail investors to participate in start-up companies' early funding rounds. The low minimum investment threshold (from as low as \$10) allows everyday retail investors to participate in transactions which were previously only available to private equity firms and 'sophisticated' investors (e.g. angel investors).

Types of Investors

Equity crowdfunding emerged from the premise that wealth is not a skill set, and that retail investors are capable of researching and making informed decisions about where and how to invest their money. Nevertheless, regulators worldwide typically distinguish between different types of retail investors based on their level of sophistication and/or income and wealth, with the view of introducing investment limits for everyday retail investors.

The regulators' intention is to limit risk exposure, while encouraging the participation of investors who have better capacity to bear losses. The UK regulation, for instance, distinguishes between four types of retail investors: everyday, sophisticated, high-net-

worth individuals, and advised investors. Everyday investors, unlike other investor types, need to certify that they will not invest more than 10% of their net investable portfolio in unlisted shares or unlisted debt securities.³⁸

On some platforms, it appears that everyday retail investors make up a smaller proportion of equity crowd-investors than previously believed. Crowdcube reported that in 2021, 62% of its investors are either high net-worth (HNW) individuals or sophisticated investors, with the average age of this group in the fifties s.

Approach to Investing

Energy 4 Impact conducted surveys of twenty-three investors, who invested in energy access-related campaigns on the Crowdcube platform. The research found that three-quarters of investors had invested in five or more campaigns. Only one respondent had invested solely in the energy access sector, suggesting that most crowd-investors diversify investments across sectors. Six in ten respondents had also used other types of crowdfunding platforms; among them, debt crowdfunding was the most popular.

38. Based on the still unpublished research of one of this report's authors, the UK crowdfunding market had the following distribution of different types of retail investors: everyday investors (47%), sophisticated investors (21%), high-net-worth individuals (17%), advised investors (less than 0.5%). Non-retail investors (FCA professionals) account for about 13%, while the data is not available for the remainder of investors in the dataset. The dataset is obtained from the Cambridge Centre for Alternative Finance and covers 2012-2016.

This finding is consistent with data recently released by Crowdcube, which shows that on their platform:

- Among everyday retail investors, the average investment is £390 (\$538) per pitch, and the average number of investments is five. The average portfolio size is £2,093 (\$2,875).
- Among HNW and sophisticated investors, the average investment is £1,800 (\$2,484) per pitch, and the average number of investments is eight. The average portfolio size is £15,000 (\$20,700).
- Among the top 25% of HNW and sophisticated investors, the average investment is £3,383 (\$4,669) per pitch, and the average number of investments is 15. The average portfolio size is £50,000 (\$69,000).

Crowdcube also reports that investors allocate no more than 1% to 3% of their portfolios to equity crowdfunding. The average investment across all Crowdcube pitches is approximately £1,500 (\$2,070). The majority of Crowdcube's investors live in the UK.

Equity Crowdfunding and Gender

Crowdcube reports that 27% of their registered investors identify as women,³⁹ while Seedrs reports that 35% of registered investors identify as women.⁴⁰ By comparison, women make up 14% of angel investors in the UK and 20% of angel investors in the US.⁴¹ Equity crowdfunding therefore appears to increase gender inclusivity, both for investors and for investees: women-founded companies account for 24% of successful raises on the Crowdcube platform.⁴² Globally, an average of 2.6% of VC funds went to women in 2019 and 2020.

Due Diligence

Research, conducted by the Cambridge Centre for Alternative Finance, shows that UK crowd-investors were willing to spend an average of 1.6 hours per week on due diligence of equity crowdfunding deals. Given the relatively small amount that crowd-investors put into these platforms (average of £1,500 (\$2,070)), and the expected return on investment (e.g. 15-30%), equity crowdfunding can be uneconomical, assuming that all crowd-investors' time is valuable; most gain £225-450 (\$311-621) returns over a five-to-

39. <https://www.crowdcube.com/explore/blog/investing/equity-crowdfunding-a-weapon-for-gender-equality>

40. <https://www.seedrs.com/academy/female-founders/>

41. <https://www.angelinvestmentnetwork.co.uk/>

42. <https://www.crowdcube.com/explore/blog/crowdcube/female-founders-find-greater-success-through-crowdfunding>

seven-year time horizon, with a massive risk of capital loss. Crowd-investors who spend time reviewing documentation and interacting on discussion forums, therefore, may do so for reasons beyond financial return. This is somewhat paradoxical, given that in research, crowd-investors cite financial return as their number one reason to invest.

The need for resources to screen investment opportunities has led to the emergence of the platform-managed portfolio fund. This crowdfunding model assumes that the platform, or an independent, experienced investor, researches a wide range of early-stage investees, to identify the top-performing sub-set which would then be selected as part of the fund. Crowd-investors would entrust their funds to the platform fund manager, who allocates funds across their investment portfolio.

Lead Investors

A number of platforms benefit from the presence of so-called lead investors. These are experienced, early-stage investors that conduct due diligence on a number of investees, and then take a sizable stake in a given firm to demonstrate their 'skin in the game'. Lead investors' interests are therefore focussed on securing a return on their investment, and maintaining their reputation as investors that select great companies. Other crowd-investors then follow these investors' lead, and may pay a fee to do so. This is an essential component of the syndicate model, but is typical to the hosted pitch model as well. As growing evidence suggests, the proportion of lead investor investment in the funding target, and their investment experience, are positively related to fundraising performance (e.g. Li et al., 2016; Shen et al., 2020; Wang et al., 2019; Xiao 2019).

Herding Behaviour

A herd instinct is a behaviour in which people join groups and follow the actions of others. In finance, it occurs when investors follow the crowd instead of conducting their own analysis. Many crowd-investors see the presence of a well-known investor, or a large group of individual investors, as a positive signal to invest (e.g. Astebro et al. 2019; Hornuf and Neuenkirch 2017; Wick and Ihl 2018).

Energy @ Waka Waka



Perhaps crowd-investors assume that many investors have already conducted due diligence on those investees, or that other investors have publicly unavailable information about them. A large number of investors also implies that the investee is popular, indicating that its products or services are likely to attract lots of demand in the market, making the business successful and delivering returns.

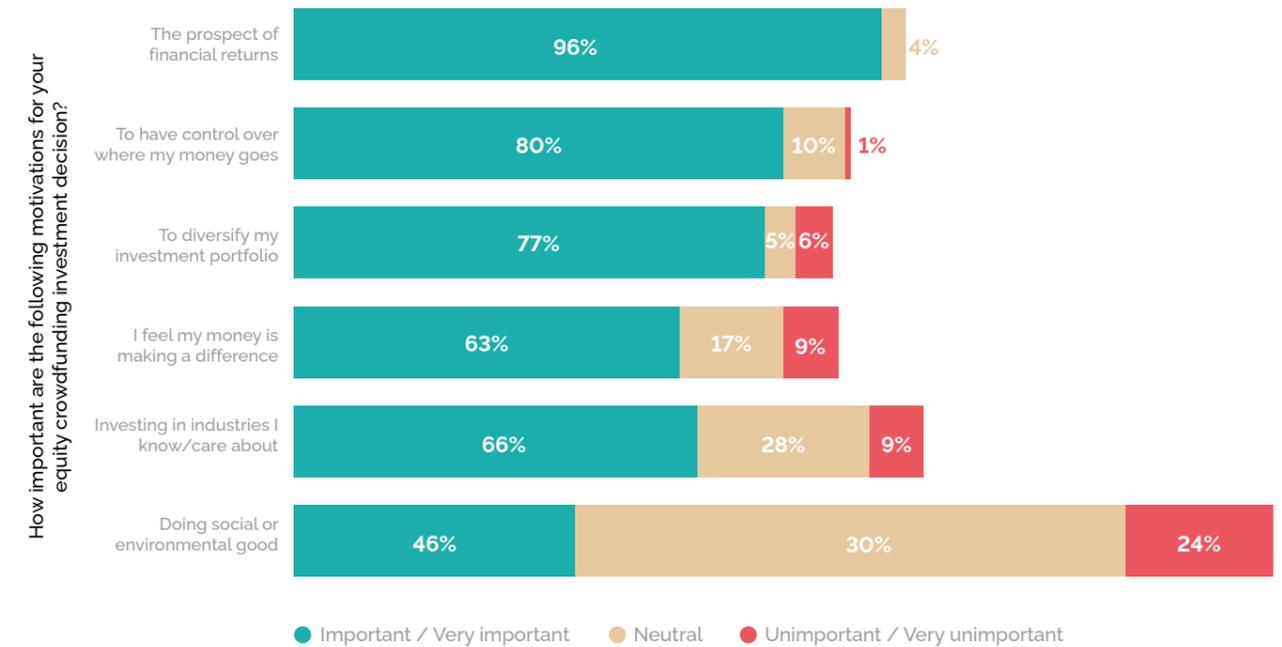
These factors mean that crowd-investors can be unduly influenced by investees that overstate the benefits of their investment, attracting large numbers of investors early on. The assumption that many investors equals adequate due diligence may also be unfounded, if no thorough due diligence was done by early investors.

5.2 INVESTOR MOTIVATIONS

The Cambridge Centre for Alternative Finance conducted research into the motivations, perceptions and behaviour of 15,658 crowd-investors across different alternative finance activities.⁴³ While the research is from 2014, and may be somewhat dated, it found that investors ranked the prospect of financial return as the most important motivating factor in their decision to invest; 96% of respondents considered this "Important" or "Very Important". Respondents ranked other important factors as follows: the ease of the investment process (85% considered this "Important" or "Very Important"), the ability to control where their money goes (80%), and the ability to diversify their investment portfolio (77%). Interestingly for the energy access sector, feeling their money is making a difference was important or very important to 63%, while 46% considered social or environmental impact to be important or very important.

43. Baeck, P., Collins, L., Zhang, B., (2015). Understanding Alternative Finance. *The UK Alternative Finance Industry Report 2014*, p. 52. Retrieved from <https://www.jbs.cam.ac.uk/wp-content/uploads/2020/08/2014-uk-alternative-finance-benchmarking-report.pdf>

FIGURE 10: EQUITY CROWD-INVESTOR FUNDING MOTIVATIONS



Source: Understanding Alternative Finance. The UK Alternative Finance Industry Report 2014, Cambridge Centre for Alternative Finance

The results of this study reflect similar trends observed in Energy 4 Impact's survey of twenty-three investors in energy access campaigns. Energy 4 Impact found financial return was the most frequently cited motivation to invest (78% of investors ranked this as a main motivation). The respondents ranked environmental impact equal third, and social impact seventh, out of fifteen options. In the Cambridge Centre for Alternative Finance study, respondents rated "doing social and environmental good" ninth out of eleven options. By comparison, debt crowdfunding investors in energy access campaigns rank financial return as the fourth most important motivation, behind alignment with personal values, social impact and environmental impact.⁴⁴

Academic research is inconclusive on the relative importance of crowd-investors' financial (extrinsic)

44. <https://energy4impact.org/file/2045/download?token=gwYL2uzX>

and non-financial (intrinsic) motivations. Early studies emphasise that financial, rational motives are a significant driver of investment decisions (Cholakova and Clarysse 2015; Moysidou and Spaeth 2016). A number of later studies bring evidence that non-financial motives can also play a role. Bretschneider and Leimeister (2017), for instance, find that receiving recognition from others, liking specific projects, creating a positive image about themselves, and influencing the realisation of specific projects, all further motivate crowd-investors. Similarly, Daskalakis and Yue (2017) find that interest and excitement about specific projects are the highest rated motivations of survey respondents in relation to equity crowdfunding; further, Wasiuzzaman et al. (2021) find that financial motivation is not significant in influencing the decision to invest in equity crowdfunding projects in Malaysia. In

contrast, intrinsic motivators, such as aesthetic value, emotional value, novelty and trust are found to be highly significant in these studies. Interestingly, the study of Vismara (2019) provides evidence of the attractiveness of sustainability-oriented ventures in equity crowdfunding. Using observational data from Seedrs and Crowdcube (2014–2015), the study shows that, although sustainability focus does not increase the chances of campaign success nor the participation of professional investors, it attracts a higher number of everyday (restricted) investors. Zhao et al. (2020)'s study has another unexpected result: unlike in traditional finance, female founders are more successful in equity crowdfunding than their male counterparts.

Most investors are highly educated people, who already have some kind of savings earning zero-interest - they would rather put some money into something that's important to them.

Alain Nkurikiye
Co-Founder, Wajenzi Fund

Expert Insight: African Diaspora Investment via Equity Crowdfunding

Alain Nkurikiye – Co-Founder, Wajenzi Fund



When I began building the Netherlands-based equity crowdfunding platform, Wajenzi Fund, I knew that the diaspora community in Europe would be a key part of our investor base. But once I began market research in the lead-up to the platform's launch in 2021, I was surprised to find that most investors were pan-Africanists. I thought a Burundian investor would want to invest in Burundi. But I was wrong. They all look at the social impact of the company, and the investment has to be something that speaks to their heart. I found that even before the return on investment, the investor must have a connection to the entrepreneur and their idea. Investments on the Wajenzi platform tend to be €700 (\$850) to €1,500 (\$1,821) each, and investors are encouraged to spread their risk across multiple deals.

5.3 INVESTMENT PERFORMANCE

Investing in early-stage companies, whether via equity crowdfunding or a fund manager, has a high level of risk. When a portfolio approach to investment is used, early-stage investment can offer high risk-adjusted returns; the risk of business failure, however, is extremely high. The vast majority of start-ups, and 75% of venture-backed companies, fail.⁴⁵ Investors are also likely to experience a lack of liquidity and may have to hold the assets for many years (typically seven to ten years) before their gains are realised. As a result, early-stage investors often rely on diversified portfolios, so that a small number of successful investments can offset losses elsewhere.

In 2016, Syndicate Room conducted research to examine the performance of all early-stage investment transactions in the UK involving leading angel investors, from 2011 to 2014; it then mapped the relative performance of these investments, assuming that each company had the same amount of funding allocated to it. They found that a portfolio of around fifty investments delivered an average return of approximately 30%

45. www.wsj.com/articles/SB10000872396390443720204578004980476429190

(with a range of ~15-40%. This was corroborated by Gregson et al in 2017.⁴⁶ When the top 10% of deals were removed from this analysis, however, the average returns dropped to 16%, with a range of 10-20%.

A substantial amount of investment has been channeled via equity crowdfunding platforms; still though, there is fairly limited information available on the performance of this asset class. The market leader, Crowdcube, has raised over £1 billion (\$1.28 billion). Of the 770 businesses that raised funds on Crowdcube in 2011-2018, 4% have provided an exit for crowd-investors, 81% are still trading, and 15% are no longer trading.⁴⁷ In exits, Crowdcube claims to have raised £60 million (\$29.5 million) for 50,000 crowd-investors, as of June 2021.

In 2015, AltFi published the report 'Where Are They Now?'⁴⁸, on the 367 companies (431 raises) that had raised via equity crowdfunding at this time. They were listed as follows in the table below.

46. Gregson, G., Bock, A. J., and Harrison, R. T. (2017). A review and simulation of business angel investment returns. *Venture Capital*, 19(4), 285-311. Retrieved from https://www.tandfonline.com/doi/full/10.1080/13691066.2017.1332546?casa_token=GasSEilqc-ocAAAAAXRosao_Szl6ersbZSwQPL5cyuFMgSVXSGdigv88wtcpYhO29oK_FozKwc-QQmcAmJCUWni86-wucyQ

47. Retrieved from <https://www.crowdcube.com/explore/investing/investor-returns>

48. AltFi (2015). *Where are they now? A report into the status of companies that have raised finance using Equity Crowdfunding in the UK*. Retrieved from <https://www.altfi.com/downloads/WhereAreTheyNow.pdf>

TABLE 12: STATUS OF FIRMS THAT RAISED EQUITY CROWDFUNDING IN 2016

STATUS	NUMBER OF FIRMS
● Red – seemingly ceased trading	29
● Amber – in difficulty	41
● Green – trading	302
●+ GreenPlus – raised capital at higher valuation	58
●✓ Realisation – delivered a return	1

Source: AltFi (2015). *Where are they now? A report into the status of companies that have raised finance using Equity Crowdfunding in the UK*. Retrieved from <https://www.altfi.com/downloads/WhereAreTheyNow.pdf>

When comparing the performance of equity crowdfunding investees to that of regular early stage ventures, academic research is inconclusive. Signori and Vismara (2018) examined a sample of successfully funded initial equity offerings, listed on Crowdcube from 2011 to 2015. They found that 18% of these firms failed, while 35% pursued one or more equity offerings, either in the form of private equity injection (9%) or follow-on offering on the same platform (25%), while three out of 212 firms were acquired.

They also found that none of the companies initially backed by professional investors have subsequently failed. In contrast to this, Walthoff-Borm et al. (2018) found that in 2012 to 2015, the failure rates of investees on Crowdcube and Seedrs were 8.5 times higher than those of matched non-equity crowdfunding firms. They also found, however, that equity crowdfunding investees had 3.4 times more patent applications than matched firms that didn't raise funds via equity crowdfunding. Their results indicate that investees financed through a nominee structure make smaller losses, while a direct shareholder structure is associated with more patent applications.

Academic papers also draw attention to other indirect measures of firms' performance, such as follow-up funding from VCs. Drover et al. (2017) show that a crowdfunding website's success rate, and the support gained in an equity crowdfunding campaign, positively affects VCs' screening decisions. Hornuf et al. (2018) compared the likelihood of follow-up funding with investees' survival rates on German and British platforms. They found that German investees

had a higher chance of obtaining follow-up funding, but also had a slightly higher chance of failing than British firms. In the entire sample of both German and British investees, they found that 18.8% obtained follow-up funding from an outside BA/VC, and 16.7% went insolvent, were liquidated, or were dissolved. Surprisingly, they also found that the number of initial VC investors and the valuation of the firm had a positive effect on firm failure. The number of senior managers and the amount raised during previous ECF campaigns, meanwhile, both had a negative impact on firm failure.

Overall, it is important to highlight that early-stage equity investment is highly risky. Investors need to be fully informed, and aware that they may lose their risk capital, and should only allocate a small proportion of their investable assets into equity crowdfunding. It is vital that investors receive adequate information, through information disclosures by investees, so that they can make informed decisions. Investors should also try to build a portfolio of smaller investments, rather than investing larger amounts into a single company.

DFIs may also be interested in exploring equity crowdfunding as a funding mechanism for energy access entrepreneurs. They, too, must be fully aware of the high risks involved in investing in early-stage equity, which apply to equity crowdfunding. Any DFI initiatives that encourage investors to participate must ensure that proper due diligence is done on investees, and that clear risk warnings and sufficient information are provided to crowd-investors, so that they can make informed decisions.



6

EQUITY CROWDFUNDING
RISKS & REGULATION6.1 EQUITY CROWDFUNDING
RISKS

Equity crowdfunding is most commonly used by early-stage companies, raising a pre-Series A round. Early-stage investment is inherently high risk. Still, there is no comprehensive, conclusive evidence to suggest that early-stage investment via equity crowdfunding represents a higher business failure risk. The following section provides a brief summary of the risks associated with equity crowdfunding. The key difference between early-stage investment via crowdfunding vis à vis traditional financiers, such as angel investors and VC funds, is that there may be greater participation of everyday retail investors (rather than sophisticated investors) on equity crowdfunding platforms.

The table below outlines the most common risks associated with equity crowdfunding, which energy access investors and regulators should be aware of as they consider this funding mechanism. These risks also apply to investment in early-stage companies in general. Note that jurisdictional risks have already been discussed, in Section 4.1.

TABLE 13: EQUITY CROWDFUNDING RISKS

RISK – ADVERSE EVENT	UNDERLYING CAUSE	ROLE OF REGULATORS
Capital losses resulting from business failure	<ul style="list-style-type: none"> Consumer herding/reliance on presumed peer due diligence Non-financial investment motivations Abuse of social media for unauthorised promotions 	<ul style="list-style-type: none"> Track marketing and promotional activities Take action against firms that do not comply with promotional rules to the public
Consumer funds lost to fraudulent or illegal investees	<ul style="list-style-type: none"> Poor due diligence by the equity crowdfunding platform Lack of transparency regarding the identity of the investee, including repeat users or cross-platform investees Funds misused or mismanaged by investees or platforms 	<ul style="list-style-type: none"> Stipulate due diligence requirements for platforms Enforce disclosure requirements and liability standards for investees Take enforcement action against bad actors
Preferential treatment of major investors or investees	<ul style="list-style-type: none"> Information asymmetry between crowd-investors and the investee/platform, if material information about the investee is not disclosed Conflict of interest between shareholders, managers and employees of the platform, which may privilege certain investors at the expense of others 	<ul style="list-style-type: none"> Enforce insider trading rules that apply within securities regulation Enforce conflict of interest rules for shareholders, managers and employees of the platform
No access to redress in case of capital losses	<ul style="list-style-type: none"> Investors' expectations about due diligence undertaken by/required from the platform might not be met 	<ul style="list-style-type: none"> Ensure that in public communications, platforms and investees include risk warnings about capital loss Require entry knowledge tests for retail investors Ensure that platforms have transparent due diligence procedures in place
Inability to realise nominal investment returns	<ul style="list-style-type: none"> Nonexistent or illiquid secondary markets 	<ul style="list-style-type: none"> Create an enabling environment for the growth of platform- or third party-run secondary markets
Lack of regulatory or contractual protections for investees	<ul style="list-style-type: none"> Regulatory gaps/failures 	<ul style="list-style-type: none"> Enforce the rule of law and contractual obligations
Capital losses resulting from unexpected dilution and changes in investees' strategic direction	<ul style="list-style-type: none"> Lack of ongoing disclosure obligations Expectation gaps regarding the platform's post-funding responsibilities to minority crowd-investors Class B shares lacking investor protection rights The malfunction of nominee structures 	<ul style="list-style-type: none"> Ensure platforms and investees are required to disclose details of share rights and terms clearly and transparently, according to protections in corporate law

Source: Crowdfunding in East Africa: Regulation and Policy for Market Development in East Africa, Cambridge Centre for Alternative Finance⁴⁹

49. Derived from Cambridge Centre for Alternative Finance (2017). *Crowdfunding in East Africa: Regulation and Policy for Market Development in East Africa*. Retrieved from https://www.jbs.cam.ac.uk/faculty-research/centres/alternative-finance/publications/crowdfunding-in-east-africa/#_X_1RX-n7TbwX

6.2 EQUITY CROWDFUNDING GLOBAL REGULATORY LANDSCAPE

The risks of equity crowdfunding are not new to financial markets: they are merely exacerbated by the fact that investees are SMEs with a high likelihood of failure. Regulators must honour the need for investor protection, while considering investees' limited capacity to comply with regulatory requirements tailored to traditional financial markets. Policymakers and regulators must balance the desire to increase innovation and capital access within their local start-up ecosystem, with the need to protect everyday investors from financial losses. This has led regulators to take different approaches to equity crowdfunding regulation.

In some jurisdictions, equity crowdfunding platforms have been criticised for escaping regulatory attention, due to their non-traditional activities. The role of platforms is often limited

to communicating and promoting crowdfunding offerings and doing due diligence, which may fall outside regulatory parameters. Thus, platforms may avoid regulated activities, such as underwriting securities or performing individual or collective asset management; applicable securities regulations may, therefore, be uncertain or non-existent in some jurisdictions. In response, some countries have introduced bespoke crowdfunding regulations to reduce the risks of equity crowdfunding, while trying not to stifle its development.

In 2019, the Cambridge Centre for Alternative Finance and the World Bank surveyed 111 regulatory authorities across 120 jurisdictions globally, on their approach to equity crowdfunding.⁵⁰ The survey confirmed that different approaches to equity crowdfunding regulation have emerged, as shown below.

50. World Bank and Cambridge Centre for Alternative Finance (2019). *Regulating Alternative Finance: Results from a Global Regulator Survey*, p.31. Retrieved from <https://www.jbs.cam.ac.uk/wp-content/uploads/2020/08/2019-11-ccaf-regulating-alternative-finance-report.pdf>

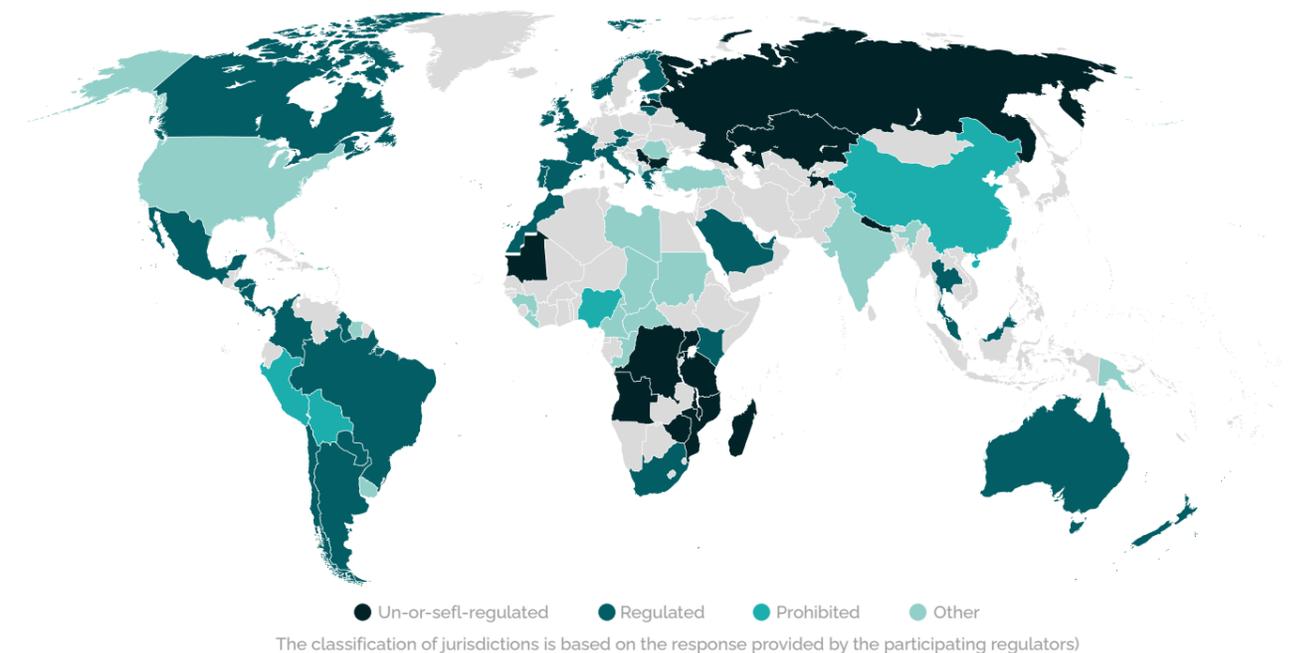
Within sub-Saharan Africa, equity crowdfunding is subject to existing securities regulations in South Africa; Kenya⁵¹ and Mauritius⁵² are currently implementing bespoke equity crowdfunding regulations. Nigeria is the only country in sub-Saharan Africa which has prohibited equity crowdfunding. Angola, DRC, Madagascar, Mozambique, Rwanda,

Tanzania, Uganda, and Zimbabwe do not regulate it. Other jurisdictions in sub-Saharan Africa, which were not included in the study, are more likely to regulate equity crowdfunding under existing regulations, than to have bespoke equity crowdfunding regulatory frameworks. The map below highlights the regulatory status of equity crowdfunding globally, based on the Cambridge Centre for Alternative Finance's survey results in 2019.

51. https://www.cma.orke/index.php?option=com_phocadownload&view=category&id=38&Itemid=196

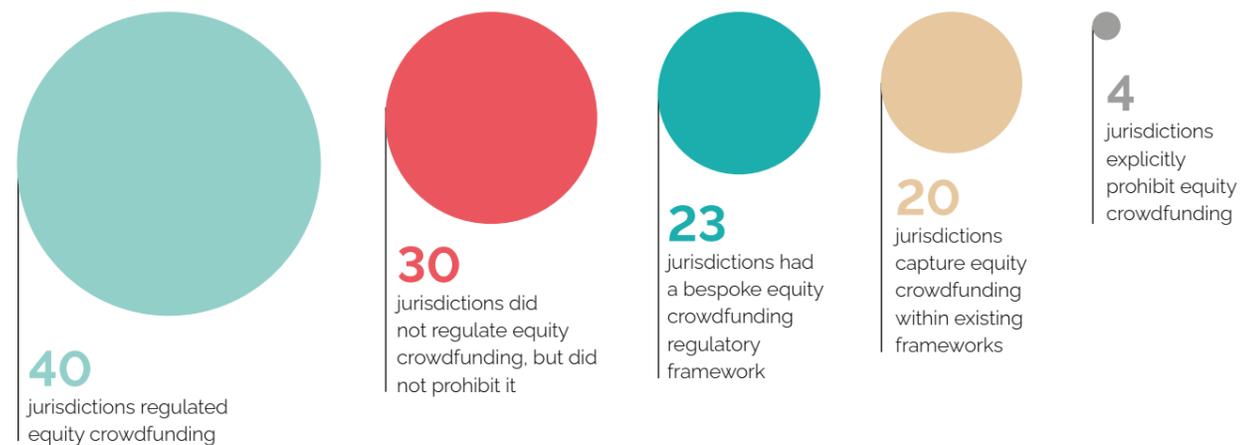
52. <https://www.fscmauriti.us.org/media/85160/consultation-paper-on-crowdfunding.pdf>

FIGURE 11: MAP OF REGULATORY APPROACHES TO EQUITY CROWDFUNDING



Source: World Bank and Cambridge Centre for Alternative Finance, 2019

REGULATORY APPROACHES TO EQUITY CROWDFUNDING GLOBALLY





Most crowdfunding regulations have been adopted within the past decade, and generally much more recently. It is still too early to provide a definitive answer on the merits of bespoke regimes for the development of crowdfunding markets globally. Some early empirical evidence suggests that crowdfunding regulations have a positive effect on both platform creation and crowdfunding volumes.⁵³ Countries that have the highest crowdfunding volumes are those that introduced crowdfunding regulation early on. Notable examples are the UK, Finland, Spain, and Germany.⁵⁴ This doesn't mean, however, that regulation is the primary cause of a successful equity crowdfunding market. Other

factors are likely much more important: researchers have found a strong positive correlation between crowdfunding volume per capita, GDP per capita and level of financial market development.⁵⁵ The impact of crowdfunding regulations for capital raising in specific sectors, such as energy access, has not been demonstrated.

Bespoke regulation is not the only path that financial regulators can take to stimulate equity crowdfunding market activity. The development of bespoke frameworks may be premature in jurisdictions where the risks and merits of equity crowdfunding models are yet to be explored. For this reason, some jurisdictions have embraced alternative regulatory approaches, which are outlined below.

53. Dushnitsky, G., Guerini, M., Piva, E., and Rossi-Lamastra, C. (2016). Crowdfunding in Europe: Determinants of platform creation across countries. *California management review*, 58(2), 44-71; Di Pietro, F., and Buttice, V. (2020). Institutional characteristics and the development of crowdfunding across countries. *International Review of Financial Analysis*, 44-71; Rau, P. R. (2021). Sometimes, always, never: Regulatory clarity and the development of crowdfunding. Available at SSRN 3797886.

54. Ziegler, et al. (2020). The global alternative finance market benchmarking report. Cambridge Centre for Alternative Finance, 82. Retrieved from <https://www.jbs.cam.ac.uk/wp-content/uploads/2020/08/2020-04-22-ccaf-global-alternative-finance-market-benchmarking-report.pdf>

55. Ziegler, et al. (2020). The global alternative finance market benchmarking report. Cambridge Centre for Alternative Finance, 105-106.

TABLE 14: RELEVANT REGULATORY INNOVATION INITIATIVES

REGULATORY RESPONSE	DEFINITION	POTENTIAL APPLICATION TO EQUITY CROWDFUNDING IN SUB-SAHARAN AFRICA
Establish innovation office, department or hub	An innovation office is a dedicated function within a regulator that engages with, and provides regulatory clarification to, financial service providers that seek to offer innovative products and services.	Many jurisdictions have multiple regulators, which adds complexity when platforms need to identify relevant regulators and frameworks for their business activity. A single point of contact within a regulator or group of regulators can help guide entrepreneurs through relevant regulatory processes, and connect them to relevant departments or other relevant institutions.
Regulatory sandboxes⁵⁶	Regulatory sandboxes are formal regulatory programmes that allow market participants to test new financial services or models with live customers, subject to certain safeguards and oversight. This enables entrepreneurs to carry out innovative activities without necessitating the burden of creating new regulations.	Regulatory sandboxes can allow platforms to test their business models in jurisdictions that are considering creating equity crowdfunding regulations, or are creating bespoke ones. Involving platforms in the process can help identify potential issues with existing regulations, or business model-specific changes that need to be considered.
RegTech/ SupTech	Supervisory technology (SupTech), or regulatory technology (RegTech), are technology solutions designed to help financial supervisory agencies regulate and supervise a rapidly digitising financial marketplace.	RegTech/SupTech applications may help regulators identify new equity crowdfunding and other FinTech companies operating in their jurisdiction. For example, it may help authorities to identify platforms or investees that undertake marketing and promotional activities via social media, in contravention of regulations.
International regulatory cooperation	Financial innovation is increasingly digital, cross-border and global, requiring regulators to carefully consider how to collaborate and work together. The need to balance the potential benefits of innovation, while addressing other regulatory objectives, has stimulated greater cooperation between regulatory authorities, which provides benefits to both regulators and innovators.	There may be an opportunity for regulators in sub-Saharan Africa and elsewhere to coordinate their approaches to equity crowdfunding. This is important given that investors may be living in many different countries around the world, and investees may also have operations across a number of markets.

56. For example, CMA in Kenya made use of their Regulatory Sandbox to allow a crowdfunding platform to test their product, while "providing the authority with the opportunity to tailor a facilitative regulatory framework for crowdfunding in the capital markets". CMA Regulatory Sandbox Milestones Report- April 2021, p. 23. Retrieved from www.cma.orke. While the crowdfunding platform admitted to the Regulatory Sandbox is a lending-based crowdfunding platform, it seems that CMA received a number of applications from crowdfunding firms, although it is not clear from the report whether some of the applicants run an equity-based model. CMA identified a number of challenges through this process, including: 1) the dilemma of whether to regulate the crowdfunding platform or the issuers using the platform; 2) the high level of risk, with the possibility of a platform being run as a Ponzi scheme; 3) the concern that developing crowdfunding regulations will take too long; 4) the cross-border nature of crowdfunding; 5) the dilemma of whether to encourage self-regulation through FinTech associations. CMA Regulatory Sandbox Milestones Report- April 2021, p.30. Retrieved from www.cma.orke.

These initiatives help regulatory authorities build knowledge and understand financial innovations; they also help crowdfunding platforms (and other fintech firms) navigate relevant regulatory frameworks, and improve regulatory clarity around their activities and operations. The initiatives also allow regulators access to different perspectives, which help inform their creation of bespoke regulation. Adopting these initiatives also allows regulators to:

- Acquire additional information on crowdfunding activity
- Find the right regulatory approach in an experimental regulatory environment
- Utilise technologically sophisticated tools to supervise the market
- Coordinate their regulatory approaches with supervisors from other jurisdictions

Crowdfunding market growth is often associated with regulatory policy initiatives. The influence of more lenient tax treatment of crowdfunding investments, meanwhile, is yet to be empirically established. The next section highlights different approaches to investor tax incentives.

Growth



As well as creating tailored crowdfunding regulations, some jurisdictions further support investment into start-ups through investor tax incentives. The UK Government, for example, established the Enterprise Investment Scheme (EIS) and the Seed Enterprise Investment Scheme (SEIS), which provide debt and equity crowdfunding investors with tax relief. EIS offers investors initial tax relief of up to 30% on investments up to £1 million (\$1.4 million) per tax year. SEIS offers investors the possibility of receiving initial tax relief of up to 50% on investments up to £100,000 (\$137,151) per tax year. Further, investors in both EIS and SEIS shares are exempt from Capital Gains Tax, if shares are held for at least three years; they are also entitled to loss relief if the shares are disposed of at a loss.⁵⁷

Both schemes are intended for UK-based companies, and not just those pursuing equity crowdfunding. The companies must pre-satisfy certain conditions regarding qualifying trade, company gross assets, number of employees and years of operation. The main differences between the two schemes lie in the limits of money that can be raised in a year and in the company's lifetime. Companies that intend to raise up to £5 million (\$6.9 million) each year and up to £12 million (\$16.5 million) in the company's lifetime (via equity crowdfunding or other means) can be EIS eligible.⁵⁸ SEIS is only available to companies that intend to raise up to £150,000 (\$205,726) in the company's lifetime. France, Italy, Spain, and Belgium also have tax incentives in place to support the growth of equity crowdfunding.⁵⁹

57. Crowdcube. Retrieved from <https://www.crowdcube.com/explore/investing/tax-relief>.

58. Companies can continue to benefit from EIS until they have raised up to £12 million (\$15.4 million), in total, through these schemes: EIS, SEIS, Venture Capital Trusts (VCT), social investment tax relief (SITR), and state aid approved under the risk finance guidelines. Fundraising above the £12 million (\$15.4 million) threshold cannot benefit from these schemes.

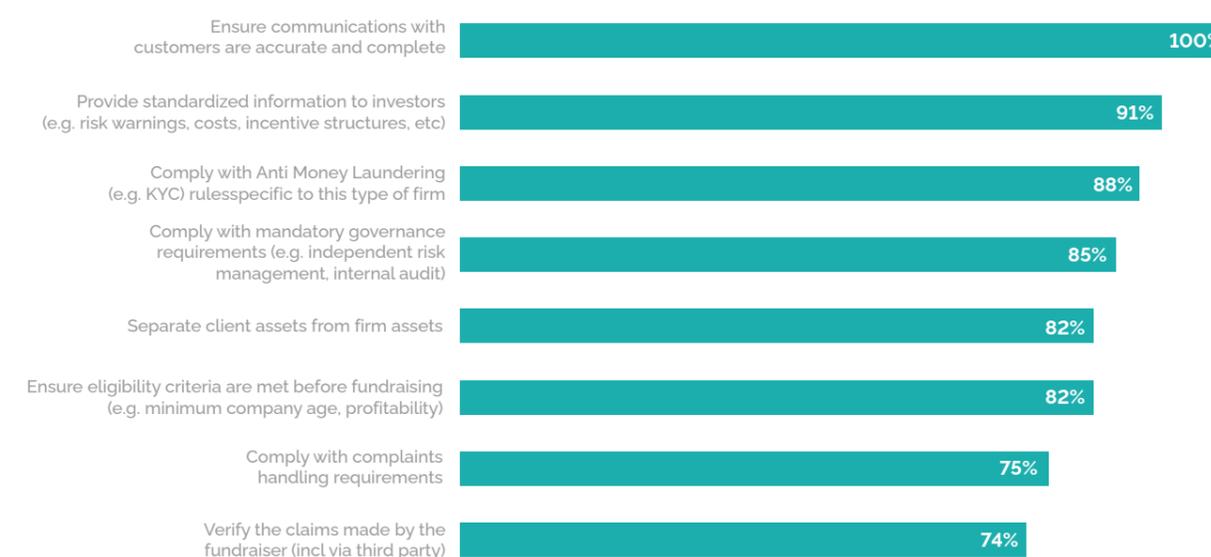
59. Cicchiello, A. F., Battaglia, F., and Monferrà, S. (2019). Crowdfunding tax incentives in Europe: a comparative analysis. *The European Journal of Finance*, 25(18), 1856-1882.

6.3 EQUITY CROWDFUNDING REGULATIONS

For jurisdictions that regulate equity crowdfunding, it is worth taking a closer look at their different approaches. The chart below shows the prevalence of different regulations, in more than 114 surveyed countries taken from the aforementioned World Bank and Cambridge regulation survey. In every country

where equity crowdfunding is regulated, provisions that ensure accurate, complete communications with customers were required (100% of survey respondents). In the vast majority of countries (80%+), the following were also required: ensuring information standardisation, complying with anti-money laundering (AML) rules and governance requirements, separating client money, and ensuring eligibility criteria requirements.

FIGURE 12:
SELECTED REGULATORY OBLIGATIONS FOR REGULATED EQUITY CROWDFUNDING FIRMS



This figure captures the top eight of eighteen obligations cited by regulators

Source: **Regulating Alternative Finance: Results from a Global Regulator Survey, 2019**

Crowdfunding regulations share some common themes. Yet there are also important differences among jurisdictions, when it comes to licensing requirements, funding thresholds, and investment caps for retail investors. Disparities in national approaches are also present with respect to tax incentives for crowd-investors. An overview of different regulatory choices in selected jurisdictions

is provided in the table below. It is worth noting that regulatory guidelines and thresholds are revised frequently. The information in this table is a guide only, based on available information at the time of publication. For example, the European Commission will enact new crowdfunding regulations from November 2021 (see [p71](#) for more information). The table below is therefore subject to change.

TABLE 15: CROWDFUNDING REGULATION GLOBALLY

COUNTRY	REGULATED ACTIVITY SINCE	PLATFORM LICENSE REQUIRED?	FUNDING THRESHOLD	INVESTMENT CAP	INVESTOR TAX INCENTIVES
Australia	2018	✓	\$3,450,000 cap on equity crowdfunding fundraising p.a.	\$6,900 p.a. in the same company via the same intermediary.	✓ For eligible early-stage companies.
European Union ⁶⁰	2021/2022	✓	€5,000,000 (\$5,710,000)	Recommendable but not mandatory limit: the higher of either €1,000 (\$1,142) or 5% of that investor's net worth.	Not uniform across the Member States.
France ⁶¹	2014	✓	€2,500,000 (\$2,855,000)	-	✓
Germany ⁶²	2015	✓	€6,000,000 (\$6,852,000)	€25,000 (\$28,550) per issuer	-
Kenya ⁶³	No bespoke framework, but subject to existing securities regulations, with new regulation being introduced.	N/A	N/A	N/A	-
Hong Kong	No bespoke framework but subject to existing securities regulations.	✓	HK \$5,000,000 (\$644,645)	N/A	Unavailable
Israel	2017	✓	NIS 4,000,000 (\$1,100,000)	NIS 10,000 (\$2,800) in a single investment and a total of NIS 20,000 (\$5,600) during a period of twelve months. Limits are subject to increase if the investor's income is above a defined threshold.	✓
Italy ⁶⁴	2013	✓	€5,000,000 (\$5,710,000)	-	✓

60. The European Crowdfunding Service Provider Regulation (ECSP) entered into force in November 2020 and will enter into application as of November 2021 in all member states. For countries in which a national bespoke crowdfunding regime exists, a transitional period of 12 months is foreseen (until November 2022) during which platforms will be allowed to operate under both the ECSP and national regimes. Upon expiration of the transition period, all platforms have to have obtained a ECSP license.

61. The existing regime will be replaced by the ECSP, following the transition period of one year in November 2022.

62. German crowdfunding regulation (Vermögensanlagengesetz – VermAnlG) does not cover equity shares but hybrid instruments (i.e. profit-participating loans, subordinated loans, profit participation rights and similar investments), which fall outside the scope of ECSP. As a result, the existing regime will continue to co-exist with the ECSP.

63. The East Africa Securities Regulatory Authorities (EASRA) legal issues subcommittee developed the Draft Equity and Debt Crowdfunding Guidelines in September 2019, which are intended to harmonise legislative frameworks across the region. The guidelines are currently under review by respective regulatory authorities, including CMA in Kenya. CMA Regulatory Sandbox Milestones Report- April 2021. Retrieved from www.cma.or.ke

64. The existing regime will be replaced by the ECSP, following the transition period of one year in November 2022

Malaysia	2015	✓	RM 20,000,000 (\$5,000,000)	Angel investors: RM 500,000 (\$125,000) within a twelve-month period. Retail investors: RM 5,000 (\$1,250) per issuer with a total amount of not more than RM 50,000 (\$12,500) within a twelve-month	✓
South Africa	No bespoke framework; subject to existing securities regulations.	N/A	N/A	N/A	-
Spain ⁶⁵	2015	✓	€2,000,000 (\$2,284,000) per project, per platform, in a given year. €5,000,000 (\$5,710,000), if the offer is limited to accredited investors.	Non-accredited investors: €3,000 (\$3,426) per issuer and maximum €10,000 (\$11,420,000) per year.	✓
Sweden ⁶⁶	2021	✓	€5,000,000 (\$5,710,000)	Recommendable but not mandatory limit: the higher of either €1,000 (\$1,142) or 5% of that investor's net worth	✓
Switzerland	No bespoke framework; subject to existing securities regulations.	N/A	N/A	N/A	-
UK	2000/67 (2014)	✓	€8,000,000 (\$9,136,600) before a prospectus must be issued. £5,000,000 (\$6,418,500) to be EIS eligible.	Retail investors who do not take advice, are not high-net-worth and are not sophisticated: aggregate limit of 10% of their net investable assets.	✓
USA	2016 (amended in 2021)	✓	\$5,000,000	For non-accredited investors with an annual income or net worth of less than \$107,000, the greatest of: \$2,200; 5% of annual income; or 5% of net worth. For non-accredited investors with an annual income and net worth of \$107,000 or more, the greatest of: 10% of annual income; or 10% of net worth, but not exceeding \$107,000.	-

65. The existing regime will be replaced by the ECSP following the transition period of one year in November 2022.

66. European Crowdfunding Service Provider Regulation will be applicable following the adoption of the new act amending the existing rules as of November 2021.

67. Equity crowdfunding platforms conduct activities relating to "arranging deals in investments" (Article 25(1) of the Financial Services and Markets Act 2000 (Regulated Activities) Order 2001), however, some platforms are licensed as a "fund manager". Bespoke equity crowdfunding rules were introduced in 2014 to supplement the existing regulation.

UK vs. US Approach to Equity Crowdfunding Regulation



Since the emergence of the first equity crowdfunding platforms in 2007, equity crowdfunding has been considered a regulated financial activity in the UK, under the 2000 Financial Services and Markets Act. In April 2014, the UK introduced bespoke crowdfunding regulation (through Policy Statement PSI 14/48) to provide additional investor protection, and to regulate the types of investors that can use equity crowdfunding platforms.

The UK regulation aims to prevent (everyday) retail investors from investing more than 10% of their net investable assets into equity crowdfunding. Accredited (professional) investors, advised investors, self-certified sophisticated investors, and high-net-worth investors are not subject to investment limits. The UK's framework does not mandate standardised disclosure documents; instead, it obliges platforms, which communicate or approve crowdfunding offers, to ensure public disclosures are fair, clear and not misleading.

In the US, equity crowdfunding was not available to retail investors before Title IV of the JOBS Act (Regulation A+) went into force in 2015. Similar to the UK approach, Regulation A+ allows retail investors to invest only a limited amount of capital in this asset class. Regulation A+ is in many aspects similar to IPOs, however – for example, it mandates investees to publish a minimum set of information before an offering is made, in a document filed with the SEC (Form 1-A). While disclosures are much lighter, they are subject to review and comments by the SEC, which is costly for investees and defers access to investors.

In 2016, in the US, regulatory requirements for equity crowdfunding were reduced, with Title III of the JOBS Act (Regulation CF). Regulation CF is limited to smaller offerings of firms incorporated in the US (up to \$5 million); it further relaxes standardised disclosures (Form C), which are filed with the SEC for notification purposes only instead of review. While both Regulation A+ and Regulation CF remain available for SME capital raising, Regulation CF is more suitable for pre-seed or seed investment, due to the reduction in compliance costs. Regulation A+ is more appropriate for more mature investees around the Series A round and higher.

Regulation CF imposed the same investment limits for both accredited and retail investors, of \$5 million in a twelve-month period. These limits were removed for accredited investors in March 2021, when new rules came into effect. According to these new rules, non-accredited investors cannot invest more than:

- i) the greater of either: \$2,200 or 5% of their annual income or net worth, if either is less than \$107,000;
- ii) 10% of annual income or net worth (whichever is greater), but not to exceed \$107,000, if both their annual income and net worth are equal to or more than \$107,000.

These limits are applicable during any twelve-month period.

In addition to these conceptual differences, the UK and US regulators take different approaches on who can be an investee. In the US, only US companies can benefit from Regulation CF. However, foreign investees wishing to run a campaign on a US platform can sometimes establish a holding company in the US, following a restructuring of their business operations.⁶⁸ In contrast, the UK regulator does not require

⁶⁸ Equity crowdfunding platforms conduct activities relating to "arranging deals in investments" (Article 25(1) of the Financial Services and Markets Act 2000 (Regulated Activities) Order 2001), however, some platforms are licensed as a "fund manager". Bespoke equity crowdfunding rules were introduced in 2014 to supplement the existing regulation.



that investees are UK-based. At the moment, however, two industry leaders, Seedrs and Crowdcube, only accept businesses headquartered in the UK and Europe.⁶⁹

To conclude, compliance costs arising from the UK regulations are lower than those arising from the American Regulation CF. This might be one reason why equity crowdfunding volumes per capita are higher in the UK than in the US.

⁶⁹ Bevilacqua plc (May 2018). Did You Know That Foreign Issuers Can Also Rely On Regulation Crowdfunding?. Retrieved from <https://www.bevilacqua.com/did-you-know-that-foreign-issuers-can-also-rely-on-regulation-crowdfunding/>

How Much Information Do Investees Have to Disclose?



Example of Key Investment Information Sheet (KISS) under the European Crowdfunding Service Provider Regulation

In November 2020, the European Crowdfunding Service Provider Regulation (ECSP) entered into force. It aims to harmonise fragmented crowdfunding regulations across EU Member States, and to allow innovative firms to raise funds more effectively cross-border. It will enter into application in November 2021, while Member States with existing crowdfunding regulations will benefit from an additional twelve months of transition time.

The rules focus on the status and behaviour of crowdfunding platforms, not investees. This has allowed a unique regulatory regime to develop, for both lending-based and equity-based crowdfunding, despite investees' differing risk-return profiles.

A central aspect of the ECSP is a high level of transparency. This is set out in its Key Investor Information Sheet (KISS), which is comprised of detailed information concerning:

- the project owners
- the crowdfunding project, including financial statements
- the crowdfunding process
- conditions for capital raising or funds borrowing
- risk factors
- the type of financial instruments offered (e.g. equity shares, bonds) and their associated rights
- the use of special purpose vehicles, in cases where the investment is made indirectly, i.e. where investors invest in an SPV which holds shares in investees
- investor rights, vis-à-vis both the platform and the investee
- specification of fees that the platform charges

The details of each of these information categories can be found in Annex I of the ECSP. The KISS is drawn up by investees, and is provided to investors by the crowdfunding platform, which needs to ensure its completion.

7

INTERVENTIONS FOR ENERGY ACCESS-RELATED EQUITY CROWDFUNDING

7.1 INTERVENTION OVERVIEW

In 2015, UK aid began supporting energy access-related crowdfunding through Energy 4 Impact Crowd Power programme. Since then, there has been an increase in the level of interest and funding from donors hoping to support the growth of this alternative fundraising channel. A range of interventions to support platforms and fundraising companies has been deployed. This section shares the concepts and learnings from deployed interventions, and suggests other interventions which are yet to be utilised for energy access-related crowdfunding.

The proposed interventions aim to facilitate access to the crowdfunding market, so that entrepreneurs can leverage the investment potential of equity crowdfunding as an additional channel of early-stage equity capital. These interventions could be funded by DFIs, or public or private donors, who are strategically interested in increasing energy access companies' access to finance.

Table 16 below maps out potential interventions for such donors to consider. These are explored in more detail in the following section of this report (7.2: Intervention Roadmap). These interventions have been selected because they are practically implementable and viable in the near future. More macro policy interventions, such as changing tax incentives or regulatory changes, are beyond the scope of this paper: they would take many years to implement, and require substantial inter-governmental collaboration beyond the core focus of energy access.

TABLE 16: PROPOSED INTERVENTIONS FOR EQUITY CROWDFUNDING FOR ENERGY ACCESS FIRMS

PROPOSED INTERVENTION	CAMPAIGN STAGE	PRIMARY STAKEHOLDER BENEFICIARY	DESCRIPTION	PURPOSE	PRIMARY DONOR INTERVENTION COSTS
1. Equity crowdfunding platform support	Pre-launch	1. Platform 2. Investee	Deal origination and due diligence support: strategic partners, with energy access sector expertise, could provide a selected number of equity crowdfunding platforms with introductions to vetted energy access firms, which have gone through their expert due diligence.	Improved access to finance and pipeline generation: this intervention would provide platforms with a pipeline of vetted energy access firms, and help suitable investees secure finance via platforms.	1. Hiring a dedicated expert to source suitable energy access transactions. 2. Marketing budget for equity crowdfunding platforms to target energy access companies.
2. Investee training and promotion	Pre-launch	1. Investee	Investment readiness and marketing support: a training programme could be established to help energy access companies prepare a campaign, to improve likelihood of success. This intervention is most effective when combined with Investee Co-investment, below.	Improved campaign quality: this could involve an application window, to attract energy access firms which could then receive a range of professional advice and support to improve their chances of fundraising success.	1. Hiring a team of experts (or an organisation) to provide expert capacity-building training on financial modelling, business plan preparation, video production, social media strategy. 2. Hiring an agency with dedicated marketing and PR expertise.
3. Investee co-investment	During the campaign	1. Investee 2. Crowd-investor	Co-investment: potential investees could be invited to apply for co-investment from public/private donors, to improve the chances of successful equity crowdfunding. This co-investment could take a number of different forms and/or a combination thereof.	Increased likelihood of campaign meeting target: there are a number of different mechanisms that could be used to co-invest, including: i) anchor funding; ii) lump sum; iii) match funding; iv) grants for successful campaign-makers; and v) investment vouchers.	1. Co-investment of 20-30% of the target funding amount, across a group of five to ten energy access companies per year.
4. Energy access diversified fund	Pre-launch	1. Investee 2. Crowd-investor 3. Platform	Platform-managed energy access fund: a fund could be established which sources funds via crowdfunding, focussed on energy access entrepreneurs, which could quickly co-invest with other investors.	This intervention could enable crowd-investors to build a more diverse portfolio of energy access firms, while enabling investees to gain quicker access to investment.	Contribution to the fund could be in the form of: i) anchor funding, or ii) catalytic first loss equity capital (credit enhancement).

A combination of these interventions is encouraged for greater success. For example, a donor could help a platform scout a good pipeline of energy access companies, and support that platform during due diligence. The same donor could sponsor some capacity-building activities for the vetted companies planning a crowdfunding campaign, and provide anchor-funding for their campaign launch. Finally, that donor could also provide investment vouchers for first-time investors, to attract a larger crowd.

To launch and run a successful campaign, the challenges faced by companies include: accessing enough anchor investors, marketing and promoting their investment to a wide pool of investors, and having the time and resources for this intensive form of fundraising. To address these issues, the interventions should serve three sub-objectives:

- Encourage well-established, or newly launched, equity crowdfunding players to take interest in energy access companies in developing countries, and facilitate their admission to the platform by reducing the costs of deal origination and due diligence.
- Provide potential investees with the support and co-investment needed to allow them to plan and execute a successful campaign.
- Encourage crowd-investors to contribute to energy access campaigns through co-investment mechanisms.

It should be noted that interventions can be aligned with three stages of equity crowdfunding campaigns:

1. Contributions during the pre-launch stage.

Interventions during this stage relate to investment readiness, campaign preparation and investor introductions. Pre-launch support, such as workshops, training and mentorship, are most effective when combined with anchor or bridge funding that can be contributed during the campaign phase (see more in Section 8.2 below).

2. Contributions during the campaign. Financial contributions during the campaign can provide crowd-investors with a quality signal, as the due diligence needed to secure public and/or private funding adds credibility to the campaign. Donor funds can provide anchor funding or be added

to private investments from the crowd once the project reaches a certain milestone – i.e., securing a predefined percentage of the target amount. The contributions from the funders usually match the investment from crowd-investors; on most platforms, they must be in the form of equity or equity that converts into a grant, so that they can be reflected on the funding target shown on platforms. For funders that can't make equity contributions in any form, a grant linked to a particular milestone (e.g. 50% or 100% of target raised) can also be very effective.

3. Contributions after the campaign. Post-campaign financial and in-kind contributions can be provided to those investees who successfully complete their campaign, to support companies whose ideas and concepts were validated by the crowd.

This section will focus on the first two stages outlined above.

7.2 INTERVENTION ROADMAP

This closing section provides a more detailed overview of the proposed interventions discussed in the previous section. Before turning to these interventions, it is important to reiterate the risks involved in equity crowdfunding, which apply to all early-stage equity investment. Investing in early-stage companies is a high risk activity, and many of the investees that receive finance via equity crowdfunding will not survive. For impact-oriented grantmakers that prioritise impact, innovation and access to capital, equity crowdfunding-related interventions may be a good fit. The Crowd Power programme has invested in seven energy access companies since early 2016, and one of them (Renovagen) has failed thus far. It should be noted, however, that two investments were made in 2021, and therefore the long-term performance of these investments is unclear.

► Intervention 1: Equity Crowdfunding Platform Support

This intervention focuses on helping platforms to source and vet prospective energy access entrepreneurs. These platforms spend a great deal of



Image: @AfricaGreenTec

time and resources on sourcing and conducting due diligence on potential investees, with >80% of these firms (on average) ultimately rejected by them.⁷⁰ If a dedicated energy access expert identified and vetted potential firms and introduced them to platforms, this could increase the number of energy access firms listing on the platforms; it would also save time and resources for the platforms, incentivising them to focus more on the energy access sector. Donors could also cover platforms' marketing budgets, to target the sector and attract ventures to the platform.

Benefits

- This could help identify a steady pipeline of early-stage energy access entrepreneurs, which could be introduced to equity crowdfunding platforms and other institutional investors.
- This could encourage platforms to place additional focus and attention on energy access entrepreneurs, and reduce their costs and time associated with identifying, sourcing and vetting potential firms in this sector.

Examples

- Quite a few equity crowdfunding platforms offer introducers a fee for introduced investees that go on to fund successfully.
- Many platforms have formed partnerships with

strategic organisations that work with start-ups, such as accelerators, professional investor networks and professional services providers, who can introduce pre-vetted investees.

► Intervention 2: Investee Training and Promotion

This focuses on providing energy access entrepreneurs with the necessary training, guidance, marketing support and endorsement to increase their chances of successfully raising funds via equity crowdfunding. This means identifying and inviting a cohort of suitable early-stage energy access firms to participate in a structured capacity-building programme, with a range of experts that can help them develop the necessary marketing/investor collateral needed to successfully execute a campaign. This support could be provided on an ad-hoc basis to each firm, as and when they are looking to fundraise; or, it could be offered on a cohort basis (this is more efficient), inviting five to ten firms (or more, to account for dropoff) to join a structured programme together, in a 'bootcamp' style four-to-six-week programme.

Once the investees are ready to raise capital and launch their campaigns, a specialist marketing agency could help them to coordinate social media, marketing and PR support, to help raise awareness and attract investment. Finally, endorsement from a

70. Retrieved from <https://help-entrepreneurseedrs.com/en/articles/1966629-what-businesses-are-eligible-to-raise-on-seedrs>
Retrieved from <https://help.crowdcube.com/hc/en-us/articles/206232424-Can-I-apply-to-raise-finance-on-Crowdcube->

reputable energy access-related donor or public/private institution can provide a 'seal of approval', helping to build trust with investors.

The support services offered could include:

- Investor introductions (given the importance of securing a lead investor for campaign success)
- Pitch training and preparation
- Business plan and financial model preparation
- Equity crowdfunding strategy support
- Legal advice
- Video and design collateral
- Social marketing and promotion from a dedicated marketing agency
- Certified endorsement from a reputable institution within the energy access sector

Benefits

- This could improve the success rate of participating firms, by ensuring that investees are well prepared for their campaign.
- This could help improve firms' ability to secure anchor investment (e.g. from VCs or angel investors).

Examples

- Energy 4 Impact Crowd Power programme provides both co-funding (in the form of grants, debt and equity) and practical support to fundraising companies in the energy access sector
- Emilia-Romagna Regional Agency supports Italian start-ups and innovative companies hoping to launch a crowdfunding campaign; they are hosted by one of the programme's platform partners, such as the equity-based platform WeAreStarting.⁷¹
- Crowdcube's Collective Impact programme, run in association with Virgin StartUp, provides investment readiness support and co-investment to successful social enterprise applicants.

71. Existing data suggests that a small percentage of investee applicants are admitted to equity crowdfunding platforms with onboarding rates of 9% in Europe, 13% in UK, 17% in Latin America and 38% in Asia-Pacific Region.



Expert Insight: The Collective Impact Investment Readiness Training Programme

Jonathan Keeling – VP Commercial, Crowdcube

In 2020, Crowdcube launched the Collective Impact⁷² programme with Virgin StartUp: an accelerator programme, to support selected social enterprises looking to raise £150,000 (\$192,555) to £1,000,000 (\$1,280,000). Collective Impact received 250 applications, and found 100 of these to be of high quality. Eight companies were shortlisted and received investment readiness training, equity crowdfunding strategy guidance, and legal and marketing support from Crowdcube, Virgin Startups and external experts. In addition to practical support, each shortlisted company is set to receive £50,000 (\$64,185) to £200,000 (\$256,740) each as an anchor investment.

72. European Investment Bank (2020). Crowdfunding and ESF – Opportunities and future perspectives for Managing Authorities, p 30. Retrieved from https://www.fi-compass.eu/sites/default/files/publications/Crowdfunding%20and%20ESF%20opportunities%20future%20perspectives%20for%20managing%20authorities_1.pdf

Intervention 3: Investee Co-Investment

This intervention provides investment into energy access companies, to increase their chances of success. These contributions can take various forms, including:

Anchor funding	A donor provides 20-30% of the investee's total target funding amount up front, as the first investment, to drive momentum in the campaign. Investees with a substantial lead investor have much higher chances of success. An investee raising \$500,000 would therefore ideally need anchor investment of \$150,000. A cohort of ten companies, each raising \$750,000 (the average equity crowdfunding amount raised for energy access firms to date), would therefore require \$1.5 million to \$2.25 million (20-30%) in anchor funding, for a total of \$7.75 million raised across this cohort.
Lump sum	When a specific campaign milestone (e.g. 50%, 75%) is achieved, a lump sum of funding could be disbursed; or this could be distributed more flexibly, at a time when the campaign needs a boost for momentum (e.g. after a week in which no or little funding has been raised).
Match funding	Donor funds could be provided in proportion to the funds committed by investors over a specific timeframe. For example, if investors provided \$200,000 of investment, which was match funded on a one-to-one basis, an additional \$200,000 of donor funds would be provided. The provision of match funding can be flexible or provided over a specific time frame, to drive momentum for the campaign.
Investment vouchers	Investors could be offered investment vouchers ranging from £20-£200 (\$27-\$274), to invest in campaigns if specific conditions are met – e.g. if this is their first investing; if they invite friends and family to co-invest; and/or if they commit at least a specific minimum investment amount (e.g. £500 (\$686), £1,000 (\$1371)). These vouchers could also be marketed as "guarantees" for small ticket size investors (e.g. millennials, Gen Z investors), who may commit anything from £100-£1,000 (\$137-\$1371); part of their investment could be perceived as "guaranteed" by the voucher. For example, if they invest at least £1,000 (\$1371), they would receive a £200 (\$274) voucher, which would guarantee 20% of their investment amount.
Cash bonus prizes	Investees could be given cash prizes upon the attainment of specific pre-set goals (e.g. a specific number of investors reached, a specific amount raised during a short period of time). For example, if a company convinced at least 100 investors to invest in their campaign by a deadline, they could receive a cash prize (e.g. £5,000 (\$6,858)). This could be marketed to the investors as well, helping to build a sense of urgency to financially commit to their pledges faster.

This intervention could provide selected energy access firms with a material amount of donor-funded equity finance (e.g. 10% to 20% of the campaign target); this would then help drive interest and investment from other crowd-investors on equity crowdfunding platforms. The donors could either be public (e.g. FCDO) or private (e.g. Shell Foundation), or a combination of the two. Energy access entrepreneurs would be invited to apply for this funding. Leading experts, investors and entrepreneurs could be invited to conduct due diligence on the selected firms.

Benefits

- Helps source and vet suitable energy access entrepreneurs, with the potential for hundreds of applicants.
- Improves the fundraising success of selected entrepreneurs by providing much needed anchor investment.
- Increases the profile and market awareness of selected firms.
- Builds crowd-investors' awareness of the energy access sector, and drives more investment into it.

Examples

- The London Co-investment Fund provides up to 20% of the equity finance sought for the science, technology and digital sectors.⁷³
- INNOVA Venture (Italy) is a public investment fund that co-invests in innovative start-ups alongside private crowd-investors, via partner platforms.

► Intervention 4: Energy Access Diversified Fund

In this intervention, an energy access fund could be raised via crowdfunding on an equity crowdfunding platform. This funding would be deployed into cohorts of five to ten energy access firms. The fund manager (e.g. Energy 4 Impact) could conduct due diligence on these companies alongside the platform, which would conduct its own legal due diligence, as part of its standard process. The fund manager could do so on a platform like Seedrs (which allows fund of fund structures); the fund could be seeded by FCDO, alongside additional retail, angel and HNW investors. This fund could then invest

in cohorts of energy access ventures on its own, or co-invest alongside other specialist energy access investors. It could be possible to raise more than £0.5 million (\$0.68 million), which could be invested in a material number of energy access companies.

Within the fund model, donors could also commit to the fund with a catalytic first loss equity tranche; this would moderate risk and attract more risk-averse sources of capital (e.g. from retail investors on equity crowdfunding platforms). The first-loss provider takes the most junior equity position in the overall capital structure, and could also seek risk-adjusted returns (e.g. take a return multiple of one at exit, and distribute higher returns to other investors).

Benefits

- Allows donors to attract more capital and investors than they could aggregate by utilising their funds alone, thus achieving a higher leverage.
- Helps crowd-investors build a diversified portfolio of vetted energy access firms (e.g. across technology, geography, stage etc.), which is less risky than having all funding in a single firm.
- A fund specialising in energy access, with expertise and industry connections, could provide additional benefits to firms, helping them grow successfully.
- Selected investees can receive funds much quicker than if they'd run their own campaign, and their chance of public failure is reduced. Note, however, that due diligence via a fund can take longer than due diligence done by platforms.
- For investors, a catalytic first-loss equity capital enhances investment protection and the potential upside of their returns. For investees, a catalytic first-loss capital helps attract funding from investors (who are keen to explore new markets like energy access, but wouldn't do so without the credit enhancement), and demonstrates their commercial viability. These investors can then provide follow-on funding to the ventures (without further interventions).

Examples

- The Sustainable Accelerator fund (UK) invests in sustainability-focused businesses via Seedrs. The anchor investment is raised from the fund's network and 'topped up' with crowd-investment.

Sustainable Accelerator Case Study



Sustainable Accelerator has raised four funds on Seedrs, raising a total of £3.6 million (\$4.9 million); it has made twenty-seven investments to date, including one investment into an energy access company called Connected Energy. The first Sustainable Accelerator fund was seeded by the Mayor of London's Waste and Recycling Board (LWARB), with a £300,000 (\$412,000) investment on a pari passu commercial basis, and another £100,000 (\$137,000) by the Sustainable Accelerator management team. Its next three funds were also seeded by the management team, alongside investment from a mix of HNW individuals, angel investors and retail investors. The Sustainable Accelerator investment team selects a cohort of seven to nine companies for each fund, and conducts due diligence on them. Seedrs also conducts due diligence, and executes the transaction via a nominee structure.

► Intervention 5: Intervention Integration

The four interventions outlined above are designed to focus on resolving certain issues within the equity crowdfunding process. Combining them could create a holistic solution, driving material amounts of investment into energy access companies, to achieve SDG7: "ensuring access to affordable, reliable, sustainable and modern energy for all".

- **Intervention 1** provides platforms with the expertise needed to conduct due diligence on energy access firms, and the marketing resources to target the sector, to reduce costs and increase deal flow.
- **Intervention 2** provides investees with capacity-building support and training, marketing support and PR support, to help prepare and execute a successful campaign.
- **Intervention 3** provides investees with different forms of co-investment to help secure lead anchor investment, build trust with crowd-investors and drive momentum during fundraising.
- **Intervention 4** provides investors with an efficient fund structure for investing in a portfolio of energy access firms.

Since 2015, eighteen successful energy access companies have raised an average of over \$800,000 via equity crowdfunding. If the interventions above enabled cohorts of five to ten energy access companies to raise equity crowdfunding per year, this could equate to \$3.8 to \$7.6 million per year for the sector (assuming this average fundraising figure). The early-stage equity financing gap is currently \$210 million annually; if these interventions were successfully enacted, equity crowdfunding could fill 5% to 10% of this gap for energy access companies. While this isn't a complete solution, therefore, it would be a significant material contribution for the energy access sector, in its mission to close that gap.

⁷³ Retrieved from <https://www.crowdcube.com/explore/raising/collective-impact>



Image: @BuffaloGrid

REFERENCES

Scholarly Articles, Regulatory and Industry Reports

Acumen (2018). Accelerating Energy Access: The Role of Patient Capital. Retrieved from <https://acumen.org/wp-content/uploads/Accelerating-Access-Role-of-Patient-Capital-Report.pdf>

Feld, B., and Mendelson, J. (2019). *Venture deals: Be smarter than your lawyer and venture capitalist*. John Wiley and Sons.

Ahlers, G. K., Cumming, D., Günther, C., and Schweizer, D. (2015). Signaling in equity crowdfunding. *Entrepreneurship theory and practice*, 39(4), 955-980.

AltFi (2015). *Where are they now? A report into the status of companies that have raised finance using Equity Crowdfunding in the UK*. Retrieved from <https://www.altfi.com/downloads/WhereAreTheyNow.pdf>

Astebro, T. B., Fernández Sierra, M., Lovo, S., & Vulkan, N. (2019, June). Herding in equity crowdfunding. *In Paris December 2018 Finance Meeting EUROFIDAI-AFFI*.

Baek, P., Collins, L., Zhang, B., (2015). *Understanding Alternative Finance*. The UK Alternative Finance Industry Report 2014. Retrieved from <https://www.jbs.cam.ac.uk/wp-content/uploads/2020/08/2014-uk-alternative-finance-benchmarking-report.pdf>

Beahurst (June 2019). Top investor types: what does an average deal look like?. Retrieved from <https://www.google.com/h?q=average+deal+size+in+equity+crowdfunding&dq=average+deal+size+in+equity+crowdfunding&ndaqs=chrome..69j579175j0j4andsourceid=chrome&ie=UTF-8>

Bevilacqua pllc (May 2018). Did You Know That Foreign Issuers Can Also Rely On Regulation Crowdfunding?. Retrieved from <https://www.bevilacquaplbc.com/did-you-know-that-foreign-issuers-can-also-rely-on-regulation-crowdfunding/>

Bretschneider, U., & Leimeister, J. M. (2017). Not just an ego-trip: Exploring backers' motivation for funding in incentive-based crowdfunding. *The Journal of Strategic Information Systems*, 26(4), 246-260.

Burfield E. (2018). *Regulatory Hacking: A Playbook for Startups*. Retrieved from <https://www.goodreads.com/book/show/37702960-regulatory-hacking>

- Cambridge Centre for Alternative Finance (2017). *Crowdfunding in East Africa: Regulation and Policy for Market Development*. Retrieved from <https://www.jbs.cam.ac.uk/wp-content/uploads/2020/08/2017-05-eastafrika-crowdfunding-report.pdf>
- Cambridge Centre for Alternative Finance (2018). *The 2nd Annual Middle East and Africa Alternative Finance Industry Report*. Retrieved from <https://www.jbs.cam.ac.uk/wp-content/uploads/2020/08/2018-06-ccaf-africa-middle-east-alternative-finance-report.pdf>
- Cambridge Centre for Alternative Finance (2020). *Global Alternative Finance Benchmarking Report*. Retrieved from <https://www.jbs.cam.ac.uk/wp-content/uploads/2020/08/2020-04-22-ccaf-global-alternative-finance-market-benchmarking-report.pdf>
- Cambridge Centre for Alternative Finance (2021). *The 2nd Global Alternative Finance Industry Report*. Retrieved from <https://www.jbs.cam.ac.uk/wp-content/uploads/2021/06/ccaf-2021-06-report-2nd-global-alternative-finance-benchmarking-study-report.pdf>
- Chen, J. (2018). Crowdfunding without intermediation. Working paper retrieved from <https://pdfs.semanticscholar.org/3e73/20576c3dd9435ebfa3d9823dd355bab940f8.pdf>
- Cholakova, M., & Clarysse, B. (2015). Does the possibility to make equity investments in crowdfunding projects crowd out reward-based investments?. *Entrepreneurship Theory and Practice*, 39(1), 145-172.
- Cicchello, A. F., Battaglia, F., and Monferrà, S. (2019). Crowdfunding tax incentives in Europe: a comparative analysis. *The European Journal of Finance*, 25(18), 1856-1882.
- CMA Regulatory Sandbox Milestones Report (April 2021). Retrieved from www.cma.or.ke.
- Crowdinsider (October 2019). *SyndicateRoom Email Indicates Shift to "Fund First Approach" to Investing*. Retrieved from <https://www.crowdfundinsider.com/2019/10/153553-syndicateroom-email-indicates-shift-to-fund-first-approach-to-investing/>
- Crowdinsider (November 2019). Long Known for its Nominee Structure, Seedrs Adds Direct Investment Option for Issuers, Investors. Retrieved from <https://www.crowdfundinsider.com/2019/11/153954-long-known-for-its-nominee-structure-seedrs-adds-direct-investment-option-for-issuers-investors/>
- Daskalakis, N., & Yue, W. (2017). User's perceptions of motivations and risks in crowdfunding with financial returns. *Available at SSRN 2968912*.
- Di Pietro, F., and Buttice, V. (2020). Institutional characteristics and the development of crowdfunding across countries. *International Review of Financial Analysis*, 44-71
- Drover, W., M.S. Wood, and A. Zacharakis. 2017. "Attributes of Angel and Crowdfunded Investments as Determinants of VC Screening Decisions." *Entrepreneurship Theory and Practice*, 41 (3): 323-347.
- Dushnitsky, G., Guerini, M., Piva, E., and Rossi-Lamastra, C. (2016). Crowdfunding in Europe: Determinants of platform creation across countries. *California Management Review*, 58(2), 44-71
- European Investment Bank (2020). *Crowdfunding and ESF - Opportunities and future perspectives for Managing Authorities*. Retrieved from https://www.fi-compass.eu/sites/default/files/publications/Crowdfunding%20and%20ESF%20opportunities%20future%20perspectives%20for%20managing%20authorities_1.pdf
- Energy4Impact - Crowd Power (2021). Crowdfunding, Energy Access, State of the Market Report 2019-2020. Retrieved from https://energy4impact.org/file/2239/download?token=OAl2YT_U
- Feld, B., Mendelson, J. (2019). *Venture Deals. Be Smarter Than Your Lawyer and Venture Capitalist*. Retrieved from <https://www.venturedeals.com/the-book/>

- Gregson, G., Bock, A. J., and Harrison, R. T. (2017). A review and simulation of business angel investment returns. *Venture Capital*, 19(4), 285-311. Retrieved from https://www.tandfonline.com/doi/full/10.1080/13691066.2017.1332546?casa_token=GasSEiLqocAAAAA:XRosao_Szl6ersbZSwQPL5cYuFMgSVXSgdigjv88wlcYhO290K_FozKwcQQmcAmJCUWni86-wucyQ
- Hornuf, L., & Neuenkirch, M. (2017). Pricing shares in equity crowdfunding. *Small Business Economics*, 48(4), 795-811.
- Hornuf, L., M. Schmitt, and E. Stenzhorn (2018). Equity Crowdfunding in Germany and the UK: Follow-Up Funding and Firm Survival." *Corporate Governance: An International Review* 26 (5):331-354.
- Le Pendeven, B. (2016). Equity crowdfunding: Impact of the innovation degree on fundraising campaigns. In ICIE 2016 Proceedings of the 4th International Conference on Innovation and Entrepreneurship: ICIE2016 (p. 335). Academic Conferences and publishing limited.
- Li, X., Tang, Y., Yang, N., Ren, R., Zheng, H., & Zhou, H. (2016). The value of information disclosure and lead investor in equity-based crowdfunding: An exploratory empirical study. *Nankai Business Review International*.
- London Co-Investment Fund (LCIF) (2021). Retrieved from <https://www.london.gov.uk/what-we-do/regeneration/funding-opportunities/london-co-investment-fund-lcif>
- Lukkarinen, A. (2020). Equity Crowdfunding: Principles and Investor Behaviour. In *Advances in Crowdfunding* (pp. 93-118). Palgrave Macmillan.
- Moysidou, K., & Spaeth, S. (2016, August). Cognition, emotion and perceived values in crowdfunding decision making. In *Open and User Innovation Conference*, Boston, USA.
- Nitani, M., and Riding, A. (2017, April). On Crowdfunding success: firm and owner attributes and social networking. In *2017 Emerging Trends in Entrepreneurial Finance Conference*.
- Paschen, J. (2017). Choose wisely: Crowdfunding through the stages of the startup life cycle. *Business Horizons*, 60(2), 179-188.
- Rau, P. R. (2021). Sometimes, always, never: Regulatory clarity and the development of crowdfunding. Available at SSRN 3797886.
- Rossi, A., Vismara, S. (2018). What do crowdfunding platforms do? A comparison between investment-based platforms in Europe. *Eurasian Business Review*, 8(1), 101-102.
- Schizas, E. (2019). Cambridge Centre for Alternative Finance: *FinTech and Regulatory Innovation online programme*.
- Shell Foundation (2018). Market Insight Early-Stage 'Blended Finance' for Universal Energy Access in Africa. Retrieved from <https://shellfoundation.org/opinion/market-insight-early-stage-blended-finance-for-universal-energy-access-in-africa/>
- Shen, T., Ma, J., Zhang, B., Huang, W., & Fan, F. (2020). "I Invest by Following Lead Investors!" The Role of Lead Investors in Fundraising Performance of Equity Crowdfunding. *Frontiers in psychology*, 11, 632.
- SIDA (2017). Crowdfunding Guarantee. Retrieved from https://publikationer.sida.se/contentassets/cd56cb8f317e4f239ceb818aa4352872/30213947_sida_infoblad_crowdfunding_guarantee_webb.pdf
- SIDA (2019). SIDA Guarantee Portfolio 2019. Retrieved from https://publikationer.sida.se/contentassets/983246ffbe9641ac880388cf8d6730a9/10204203_guarantee_portfolio_2019_webb.pdf
- Signori, A., and S. Vismara. 2018. "Does Success Bring Success? the Postoffering Lives of Equity-Crowdfunded Firms." *Journal of Corporate Finance* 50: 575-591.
- Vismara, S. (2016). Equity retention and social network theory in equity crowdfunding. *Small Business Economics*, 46(4), 579-590.

- Vismara, S. (2019). Sustainability in equity crowdfunding. *Technological Forecasting and Social Change*, 141, 98-106.
- Walthoff-Borm, X., Vanacker, T. R., & Collewaert, V. (2018). Equity crowdfunding, shareholder structures, and firm performance. *Corporate Governance: An International Review*, 26(5), 314-330.
- Wasiuzzaman, S., Lee, C. L., Boon, O. H., & Chelvam, H. P. (2021). Examination of the motivations for equity-based crowdfunding in an emerging market. *Journal of theoretical and applied electronic commerce research*, 16(2), 63-79.
- Wick, J. N., & Ihl, C. (2018, July). Herding and the Role of Experts in Equity Crowdfunding Markets. *In Academy of Management Proceedings* (Vol. 2018, No. 1, p. 16013). Briarcliff Manor, NY 10510: Academy of Management.
- World Bank and Cambridge Centre for Alternative Finance (2019). *Regulating Alternative Finance: Results from a Global Regulator Survey*. Retrieved from <https://www.jbs.cam.ac.uk/wp-content/uploads/2020/08/2019-11-ccaf-regulating-alternative-finance-report.pdf>
- World Bank (February 2020). Off-Grid Solar Market Trends Report. Retrieved from <https://www.worldbank.org/en/topic/energy/publication/off-grid-solar-market-trends-report-2020>
- Xiao, L. (2019). How lead investors build trust in the specific context of a campaign: a case study of equity crowdfunding in China. *International Journal of Entrepreneurial Behavior & Research*.
- Wang, W., Mahmood, A., Sismeiro, C., & Vulkan, N. (2019). The evolution of equity crowdfunding: Insights from co-investments of angels and the crowd. *Research Policy*, 48(8), 103727.
- Zhao, Y., Xie, X., & Yang, L. (2020). Female entrepreneurs and equity crowdfunding: the consequential roles of lead investors and venture stages. *International Entrepreneurship and Management Journal*, 1-29.

OTHER ELECTRONIC SOURCES

- <https://www.africagreentec.com/>
- <https://www.crowdcube.com/>
- <https://www.econeers.de/>
- <https://www.energea.com/>
- <https://energy4impact.org/>
- <https://gocardless.com/>
- <https://www.hootsuite.com/>
- <https://stripe.com/en-gb/>
- https://upload.wikimedia.org/wikipedia/commons/thumb/e/e3/Startup_Financing_Cycle.png/1200px-Startup_Financing_Cycle.png

ANNEX: INTERVIEWEES

Name	Institution	Type
Andreas Lehner	Trine	Platform
Dirk Völker	Greenvesting	Platform
Elizabeth Howard	African Crowdfunding Association	Platform Association
Jonathan Keeling & Matt Cooper	Crowdcube	Platform
Alain Nkurikiye	Wajenzi	Platform
Oliver Percl	Crowd4Climate	Platform
Sabine Altmann	Greenvesting	Platform
Tom Britton	Syndicate Room	Platform
Ronald Kleverlaan	European Centre for Alternative Finance at Utrecht University	Expert
Gavriel Landau	Charm Impact	Impact Investor (Investee)
Daniel Becerra	Buffalo Grid	Energy Access Entrepreneur
Greg Nau	MPower	Energy Access Entrepreneur
Karl Boyce	ARC Global (formally ECOPOW3R)	Energy Access Entrepreneur



www.energy4impact.org